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general public for consultation on matters relating to the Bureau's work, as, for
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This Issue in Brief

War and postwar wages, prices, and hours of work

Comparisons of changes during World War I and II show far greater increases in both wages and prices from 1914 to 1919 than from 1939 to 1944. Comparatively slight differences occurred in the percentage increases in average weekly earnings, mainly because of the divergent trends of hours. Weekly hours in factories fell during the first period from 49.4 to 46.3, and rose during the second period from 37.7 to 45.2. The index of consumers' prices rose 72.4 percent from 1914 to 1919 and 26.3 percent from 1939 to 1944. Wholesale prices increased more in both periods than consumers' prices but declined more between the two wars. Factors other than changes in basic rates of wages, such as hours of work and premium payments for overtime, had far less effect on average earnings in the First World War than from 1939 to 1944, when factory average weekly earnings rose 93 percent, average hourly earnings 61 percent, and basic wage rates only about 35 percent. The rise in union hourly rates in printing trades in World War I was 39.9 percent, and in World War II, 13.1 percent. Page 613.

Recent price trends in foreign countries

Governments generally have attempted to bring about a fair distribution of the available supplies of consumers' goods by price controls and rationing. The success of the controls imposed has varied widely from country to country. Their success has been determined in important part by the method of war financing used by the government. The greater the war damage and the smaller the supplies of consumers' goods, the harder it is to control prices. In countries where supplies have not been large enough to meet the rations set for civilians or where the rations were not large enough to maintain the population at a standard of living which can be accepted by the majority of the people, large black markets have developed. Page 624.

Work injuries in the United States during 1944

Accidents on the job caused injury to over 2¼ million workers in 1944. However, the number of injuries (2,230,400) was 7.7 percent below the level of 1943, thus reversing an upward trend that had been apparent since 1938. Fatal accidents decreased more sharply than other types of disabilities in 1944. Page 638.

City gardens in wartime

In 1 week during the fall of 1944 city families consumed over 100 million pounds of vegetables and fruits produced in their own gardens. Nearly 1 out of 3 city families produced food for their own use. During the week surveyed approximately 40 percent of the vegetables consumed by families with gardens were home-grown. The higher the income the more likely the family was to have a garden, but the lower the income the higher was the proportion of vegetables that were home-produced. Families with gardens ate half again as many vegetables as families without gardens. Almost 1 out of 4 city families consumed some home-processed food during the week surveyed. Page 644.

Labor conditions in Japan

Japan's sudden, successful entrance into industrial world competition was due not to extensive natural resources and capital but largely to a policy of low wages and long hours applied by a powerful governing class to an industrious working population. In mid-1942 industrial employment totaled 9,547,000, out of a population of more than 73,000,000. Industry was dominated by about a dozen large groups, each controlling an empire of factories, mines, transportation, banks. Labor-union organization began after World War I and grew (under police sur-

veillance) until 1937, when the Government began to convert the unions into patriotic labor societies on the Nazi pattern. Collective bargaining covered 136,000 workers in 1936, and compulsory arbitration was applied to a limited class of disputes. Page 651.

Employment trends in seven North Central States, 1939-45

Wartime manufacturing employment reached its peak in January 1944 in the seven North Central States of Illinois, Wisconsin, Minnesota, Iowa, Nebraska, and the Dakotas. The maximum number of employees, 2,220,000, was 71 percent above the prewar level of 1,300,000. Since that time employment has been declining and by April 1945 had fallen to about 2,000,000. The problem of providing employment is especially serious in the metalworking industry in Illinois, Wisconsin, and Minnesota, which together had 660,000 more workers in 1944 than before the war. Page 695.

Labor force in durable-goods manufacture in San Francisco Bay area

Of the labor force in the durable-goods industry in the San Francisco Bay area in the summer and early fall of 1943, 47 percent had come from other States or from other parts of California. Sixty percent were in occupations unrelated to their customary employments. Whites constituted 91 percent of the whole labor force of the area, and $3\frac{1}{2}$ percent of these were Mexicans. The racial minorities consisted largely of Negroes, Chinese, and Filipinos, with a sprinkling of such other peoples as Indians, Koreans, and Hawaiians. Page 708.

Wartime expansion of the California airframe industry

California has occupied top place in the production of airplanes for the war. In December 1941 that State accounted for 48 percent of all airframe employment in the United States. Although its percentage has declined since that time, as plants in other parts of the country came into production, in the summer of 1945 it still had about a fourth of the total number of employees in the industry. Between the beginning of 1940 and July 1943 the number of workers in the California airframe industry rose from 30,000 to 280,300, over an eightfold increase. Thereafter employment declined almost continuously, reaching 93,200 in August 1945. Page 721.

Operations of credit unions in 1944

After 2 years of declining membership and business, caused by wartime conditions, the credit union movement in 1944 showed an increase in both of these items. Credit union membership totaled 3,027,694 at the end of the year; loans granted in 1944 amounted to \$212,305,479. Total assets, which had maintained an unbroken upward trend, reached an all-time peak of \$397,929,814. Page 732.

British housing measures

Exploratory work to supply a limited amount of housing in the transitional period commenced in Great Britain during the war, and a training program was instituted to supplement the force of building-construction labor which had dwindled to a third of its prewar strength. It was agreed that house construction should have a high priority among reconstruction measures. To proceed with the greatest possible speed, plans were made for temporary and permanent construction. The local authorities were to play an important part in the program, and the National Government provided for financial aid by special legislation. At most, it was expected that 300,000 permanent units would be completed or in process of erection 2 years after the end of the war in Europe. Page 739.

Wages in the basic lumber industry, 1944

Straight-time average hourly earnings in the basic lumber industry increased 41 percent during the interval between the autumn of 1939 and August 1944, rising from 51 cents to 72 cents. The highest average earnings were in the West (\$1.18 per hour in August 1944), followed by the North (73 cents); the lowest earnings were in the South (52 cents). In the various branches of the industry, the averages were 67 cents in sawmills, 78 cents in logging camps, 53 cents in cooperage-stock mills, \$1.45 in shingle mills, 52 cents in veneer mills, and 73 cents in plywood mills. Page 762.

CURRENT LABOR STATISTICS

V

Current Statistics of Labor Interest in Selected Periods ¹

[Available in reprint form]

Item	Unit or base period	1945			1944	1939: average for year
		August	July	June	August	
<i>Employment and unemployment</i>						
Civilian labor force (BC): Total	Thousands	54,350	55,220	² 53,140	² 54,010	² 54,230
Male	do	35,020	35,140	² 34,380	² 35,570	² 40,950
Female	do	19,330	20,080	² 18,760	² 18,440	² 13,280
Employed ⁴	do	53,520	54,270	² 52,060	² 53,170	² 46,930
Male	do	34,590	34,660	² 33,800	² 35,140	² 35,600
Female	do	18,930	19,610	² 18,260	² 18,030	² 11,330
Nonagricultural	do	44,470	44,430	² 42,970	² 44,600	² 37,430
Agricultural	do	9,050	9,840	² 9,090	² 8,570	² 9,500
Unemployed	do	830	950	² 1,080	² 840	² 7,300
Civilian employment in nonagricultural establishments: Total. ⁴	do	36,844	37,205	37,556	38,744	30,353
Manufacturing	do	13,813	14,136	14,538	16,023	10,078
Mining	do	783	784	794	834	845
Construction ⁵	do	933	896	845	700	1,753
Transportation and public utilities.	do	3,838	3,836	3,833	3,818	2,912
Trade	do	6,958	6,981	7,004	6,918	6,618
Finance, service, and miscellaneous.	do	4,605	4,650	4,589	4,582	4,160
Federal, State, and local government, excluding Federal force-account construction.	do	5,914	5,922	5,953	5,869	3,988
Military personnel	do	12,300	12,300	12,300	11,700	362
Production-worker employment: ⁶						
Manufacturing	do	11,651	11,928	12,326	13,758	8,192
Bituminous-coal mining	do	321	323	331	352	371
Class I steam railroads, including salaried employees (ICC).	do	1,449	1,451	1,454	1,449	988
Hired farm workers (BAE)	do	2,642	2,544	2,357	2,694	⁷ 3,063
<i>Hours and earnings</i>						
Average weekly hours:						
Manufacturing	Hours		44.0	44.6	⁸ 44.6	37.7
Bituminous-coal mining	do		40.8	46.0	⁸ 39.5	27.1
Retail trade	do		41.9	40.6	⁸ 41.7	43.0
Building construction (private)	do	39.8	40.1	42.2	40.0	32.4
Average weekly earnings:						
Manufacturing			\$45.42	\$46.34	⁸ \$45.43	\$23.86
Bituminous-coal mining			\$50.70	\$59.04	⁸ \$47.20	\$23.88
Retail trade			\$29.34	\$28.46	⁸ \$27.83	\$21.17
Building construction (private)		\$55.62	\$55.57	\$54.88	\$52.90	\$30.24
Average hourly earnings:						
Manufacturing			\$1.033	\$1.038	⁸ \$1.018	\$0.633
Bituminous-coal mining			\$1.251	\$1.281	⁸ \$1.199	\$0.886
Retail trade			\$0.775	\$0.770	⁸ \$0.732	\$0.536
Building construction (private)		\$1.399	\$1.387	\$1.300	\$1.323	\$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry.			\$0.969	\$0.970	⁸ \$0.950	\$0.622
Employment by industry as of January 1939.			\$0.906	\$0.905	⁸ \$0.874	\$0.622
Quarterly farm wage rate, per day without board (BAE).			\$4.48		⁸ \$4.06	⁸ \$1.59
<i>Industrial injuries and labor turn-over</i>						
Industrial injuries in manufacturing, per million man-hours worked.				17.0	⁹ 19.8	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations		17.6	7.7	7.9	7.8	⁷ 3.0
Quits		6.2	5.2	5.1	6.2	⁷ 0.8
Lay-offs		10.4	1.5	1.7	0.5	⁷ 2.1
Total accessions		5.7	5.7	5.9	6.3	⁷ 5.1
<i>Strikes and lock-outs</i>						
Strikes and lock-outs beginning in month:						
Number		410	500	485	501	218
Number of workers involved	Thousands	220	290	292	198	98
All strikes and lock-outs during month:						
Number of man-days idle	do	1,350	1,500	1,725	959	1,484
Man-days idle as percent of available working time.		0.19	0.21	0.23	0.12	0.28

See footnotes at end of table.

Current Statistics of Labor Interest in Selected Periods ¹—Continued

Item	Unit or base period	1945			1944	1939: average for year
		August	July	June	August	
<i>Prices</i>						
Consumers' price index (moderate income families in large cities): All items. ¹⁰	1935-39=100	129.2	129.0	129.0	126.4	99.4
Food.....	1935-39=100	140.9	141.1	141.1	137.7	95.2
Clothing.....	1935-39=100	146.2	145.4	145.4	139.4	100.5
Rent.....	1935-39=100		108.3	108.3	108.2	104.3
Fuel, electricity, and ice.....	1935-39=100	111.4	110.0	110.0	109.8	99.0
Housefurnishings.....	1935-39=100	145.5	145.8	145.8	139.3	101.3
Miscellaneous.....	1935-39=100	124.4	124.0	124.0	122.3	100.7
Retail food price index (large cities): All foods.....	1935-39=100	140.9	141.7	141.1	137.7	95.2
Cereals and bakery products.....	1935-39=100	100.1	109.1	109.1	108.5	* 94.5
Meats.....	1935-39=100	131.8	131.6	131.6	129.0	96.6
Dairy products.....	1935-39=100	133.4	133.4	133.4	133.6	95.9
Eggs.....	1935-39=100	171.4	157.2	145.1	159.4	91.0
Fruits and vegetables.....	1935-39=100	183.5	191.8	192.6	175.7	94.5
Beverages.....	1935-39=100	124.7	124.7	124.7	124.3	95.5
Fats and oils.....	1935-39=100	124.0	124.0	123.9	122.7	87.7
Sugar and sweets.....	1935-39=100	126.6	126.5	126.4	126.5	100.6
Wholesale price index: All commodities.....	1926=100	105.7	105.9	106.1	103.9	77.1
All commodities other than farm products.....	1926=100	100.9	100.7	100.7	99.7	79.5
All commodities other than farm products and foods.....	1926=100	99.9	99.7	99.6	98.6	81.3
Farm products.....	1926=100	126.9	129.0	130.4	122.6	65.3
Foods.....	1926=100	106.4	106.9	107.5	104.8	70.4
<i>National income and expenditures</i>						
National income payments (BFDC).....	Millions.....	\$12,744	\$13,585	\$14,397	\$12,586	⁷ \$5,483
Consumer expenditures for goods and services (BFDC).....	do.....			¹¹ \$24,510	¹¹ \$24,045	¹¹ \$15,406
Retail sales (BFDC).....	do.....	\$6,085	\$5,755	\$6,079	\$5,788	⁷ \$3,422
<i>Production</i>						
Industrial production index, unadjusted (FR): Total.....	1935-39=100	190	212	220	235	109
Manufacturing.....	1935-39=100	198	224	234	251	109
Minerals.....	1935-39=100	144	145	147	147	106
Bituminous coal (BM).....	Thousands of short tons.	47,800	47,275	50,890	54,177	32,905
Carloadings index, unadjusted (FR).....	1935-39=100	132	143	145	146	101
Electric energy (FPC): Total.....	Millions of kw.-hrs.	22,609	23,038	22,999	23,901	(¹²)
Utilities (production for public use).....	do.....	18,627	18,954	18,833	19,573	⁷ 11,014
Industrial establishments.....	do.....	3,982	4,084	4,166	4,328	(¹²)
<i>Construction</i>						
Construction expenditures.....	Millions.....	\$557	\$534	\$492	\$438	⁷ \$682
Value of urban building construction started.....	do.....	\$167	\$169	\$146	\$86	(¹²)
New nonfarm family-dwelling units.....		20,100	23,300	20,400	12,800	⁷ 51,200

¹ Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines); FPC (Federal Power Commission). Most of the current figures are preliminary.

² Not comparable with July and August figures due to a change adopted by the Bureau of the Census, July 1945, in sampling methods. (See Monthly Report on the Labor Force, September 1945.) The July old-schedule estimate of the total labor force was 53,750,000. Estimates for earlier months are being revised.

³ 10-month average—March to December 1940.

⁴ Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from employment in civilian labor force mainly because of exclusion of such groups as self-employed and domestic and casual workers.

⁵ Includes workers employed by construction contractors and Federal force-account workers (nonmaintenance construction workers employed directly by the Federal Government). Other force-account non-maintenance construction employment is included under manufacturing and the other groups.

⁶ Reports in manufacturing and mining now relate to "production workers" instead of "wage earners" but with no appreciable effect on the employment estimates.

⁷ August.

⁸ July.

⁹ June.

¹⁰ For the coverage of this index see p. 781. Formerly listed as "cost-of-living index."

¹¹ Second quarter.

¹² Not available.

MONTHLY LABOR REVIEW

OCTOBER 1945

War and Postwar Wages, Prices, and Hours, 1914-23 and 1939-44¹

Part 1.—Comparisons of World Wars I and II

Summary

A WIDESPREAD interest in historical analogies and comparisons has been particularly evident in connection with World Wars I and II. Recently this interest has extended to the period following the First World War and the possible course of events after the Second World War. This report deals with three important phases of such comparisons, namely, wages, prices, and hours of work, with incidental references to related subjects.

Comparisons of this nature necessarily have serious limitations. Not the least of these is the inadequate nature of available information, especially for the earlier period. It is impossible to trace the course of wages and hours in detail during the First World War, but extensive information is available for the years 1914 and 1919 and for succeeding years. The years 1914 to 1919 are compared with the corresponding 5-year period from 1939 to 1944. Changes during the concluding months of World War II were comparatively slight. Between June 1944 and June 1945, the hourly earnings of factory workers rose 2.0 percent; their weekly hours fell 1.5 percent; the index of consumers' prices² rose 2.9 percent; and the wholesale price index rose 1.7 percent. The two equal periods from 1914 to 1919 and from 1939 to 1944 covered broadly similar conditions of war in Europe and of American preparation for war or actual warfare. These time comparisons, although imperfect, are the best that can be made with available statistics. It is believed that the data are sufficiently comparable and that the basic conditions are sufficiently analogous to give considerable interest to such a study as is undertaken in the present article.

Average hourly earnings more than doubled between 1914 and 1919, the increase being mainly a result of changes in basic rates of wages. Increases far smaller occurred from 1939 to 1944, and yet factors other than basic wage-rate changes, especially premium payments for overtime, were much more important than in the First World War. The increase in gross average hourly earnings in factories from 1939 to 1944 was 61 percent; the increase in basic wage rates was hardly more than 35 percent.

¹ Prepared in the Bureau's Editorial and Research Division by Witt Bowden.

² Formerly called the index of cost of living.

Increases in average weekly earnings during the two periods were not radically different, especially in factory earnings, in which the rise in the first period was about 100 percent, and in the second period, 93 percent. When pay-roll deductions are considered, however, the difference is much greater, for the large deductions for taxes and bonds made it impossible, in the Second World War, to view weekly earnings as "take home" pay available for current consumption.

The adoption of a national stabilization program during the Second World War was a major factor in preventing both wages and prices from rising as much as in the First World War. The index of consumers' prices (formerly called the index of cost of living) rose 72.4 percent from 1914 to 1919, in contrast to a rise of only 26.3 percent from 1939 to 1944. The increases in wholesale prices were larger in both periods than were those in consumers' prices, but the index of consumers' prices fell less between the two wars. As a net result, the index of consumers' prices in both 1939 and 1944 was at a higher level, in relation to 1914, than was the index of wholesale prices.

The workweek was somewhat shorter in 1919 than in 1914 but much longer in 1944 than in 1939. The reductions during the First World War were made from levels far higher than those of 1939. The prevailing workweek in factories in 1914 averaged 55.1 hours, in contrast to the usual 40-hour week in 1939. Weekly hours actually worked in factories fell from 49.4 in 1914 to 46.3 in 1919 and rose from 37.7 in 1939 to 45.2 in 1944.

Wage Changes in the Two World Wars

MANUFACTURING, MINING, AND RAILROADS

The broadest comparisons of wages during the two World Wars relate to manufacturing, coal mining, and railroads (table 1). Average hourly earnings in manufacturing rose from \$0.223 in 1914 to \$0.477 in 1919, an increase of 113.9 percent. Similar percentage advances occurred in bituminous-coal mining and steam railroads. Workers in the bituminous-coal mining industry, however, received higher wages, the average for 1914 being \$0.358, and for 1919, \$0.759. Bituminous-coal mining employed a comparatively large proportion of skilled workers engaged in heavy and hazardous occupations. The hourly earnings of railroad workers, comprising a wide variety of occupations, averaged \$0.252 in 1914 and \$0.537 in 1919.

The increases in average hourly earnings from 1939 to 1944 were comparatively small, ranging from 27.6 percent in anthracite mining to 61.0 percent in manufacturing. The average for factory workers rose much more than did the averages for most of the nonmanufacturing groups. In retail trade, for example, the largest of the nonmanufacturing groups, the increase was only 35.1 percent.

The rise in average hourly earnings from 1939 to 1944 was not only much smaller than from 1914 to 1919 but was also more largely a result of temporary increases in premium payments for overtime. The average of gross hourly earnings in factories rose from \$0.633 in 1939 to \$1.019 in 1944; the straight-time average rose from \$0.622 to \$0.947. Another factor that appears to have had greater recent effect than in World War I is the relatively large increase in employment in war industries, such as shipbuilding and aircraft, with comparatively high

wage rates. When the effects of interindustry shifts in employment are excluded, straight-time hourly earnings averaged, in 1944, only \$0.869 as compared with the gross average of \$1.019. The increase in basic wage rates in manufacturing from 1939 to 1944 appears to have been about 35 percent, as compared with a rise of 61.0 percent in gross hourly earnings.

TABLE 1.—Average Weekly and Hourly Earnings in Manufacturing, Coal Mining, and Steam Railroads, 1914, 1919, 1939, and 1944

Industry	Amount				Percent of increase—	
	1914 ¹	1919 ¹	1939	1944	1914-19	1939-44
Average weekly earnings: ²						
Manufacturing.....	\$11.01	\$22.08	\$23.86	\$46.08	100.5	93.1
Bituminous-coal mining.....	12.22	25.65	23.88	51.27	109.9	114.7
Anthracite mining.....	11.40	26.92	25.67	47.93	136.1	86.7
Steam railroads (class I).....	13.66	24.84	30.71	45.69	81.8	48.8
Average hourly earnings:						
Manufacturing ³.....	.223	.477	.633	1.019	113.9	61.0
Bituminous-coal mining ⁴.....	.358	.759	.886	1.186	112.0	33.9
Anthracite mining.....	.274	.640	.923	1.178	133.6	27.6
Steam railroads (class I).....	.252	.537	.707	.934	113.1	32.1

¹ The sources and methods used in computing the averages were described in Monthly Labor Review, September 1940 (pp. 517-544), but some of the averages there given have been revised.

² The wide differences in extent of change in average weekly earnings were caused in part by differences in average weekly hours (table 6).

³ Changes in average hourly earnings in manufacturing were significantly affected by changes in the proportions of workers in the different industries, as the shift of workers to high-wage industries such as shipbuilding.

⁴ The inclusion of travel time in 1944 as compensable time causes an increase of 7 or 8 percent in compensable hours. If it is assumed that travel time was in reality working time before as well as after the adoption of the travel-time rule, that rule caused an increase in average hourly earnings not shown in the table, the percentage increase being affected by the payment of rates for travel time one-third lower than the rates for productive time.

The increases in average weekly earnings during the period from 1914 to 1919 ranged from 81.8 percent for railroad workers to 136.1 percent for anthracite miners. The increases, except for anthracite mining, were smaller than those in hourly earnings. During the period from 1939 to 1944, the weekly earnings of railroad workers rose much less than the earnings of factory workers and miners, a major cause being the much smaller increase in the hours of work of railroad employees. The average workweek of railroad workers, however, was much longer in 1939 than was the usual workweek. In general, the decline in weekly hours from 1914 to 1919 checked the rise in weekly earnings; in contrast, the sharp rise in hours from 1939 to 1944 was a major cause of the upturn in weekly earnings.

Factory average hourly earnings rose 113.9 percent from 1914 to 1919 and only 61.0 percent from 1939 to 1944, whereas the rise in average weekly earnings in the first period was 100.5 percent, and in the second period, 93.1 percent. Weekly earnings in the two periods are not comparable, however, from the point of view of "take home" pay or compensation actually available for current consumption, because of the recent increase in pay-roll deductions. In the First World War these deductions were negligible. The gross weekly earnings of factory workers in June 1944 averaged \$46.24, but it is estimated that the "spendable" earnings of a worker earning that amount and having three dependents amounted only to \$39.56. The difference is the sum of the estimated deductions for taxes and bonds.

A single worker, earning \$46.24, but without dependents, and subject to a higher tax rate, had estimated "spendable" earnings of only \$33.79.

There is a striking contrast in the levels of both hourly earnings and weekly earnings during the two periods. General increases in hourly earnings occurred between 1919 and 1939. Average weekly earnings of factory and railroad workers were also somewhat higher in 1939 than in 1919, but the averages of the coal-mining industries declined, although less sharply than did weekly hours in mining (table 6). The much higher level of hourly earnings in 1939 than in 1919 is to be explained largely by the sharp rise in labor productivity. Average output per man-hour in manufacturing industries rose 128 percent; average hourly earnings adjusted by the consumers' price index rose only 69 percent; and unit labor cost fell 44 percent. Large increases in labor productivity occurred also in coal mining and railroad transportation.

UNION HOURLY RATES

The increases in basic rates of wages as embodied in union agreements in the building and printing trades were much smaller during both periods than were the increases in average hourly earnings in manufacturing, mining, and railroads. The average union hourly rate of wages in the building trades rose from \$0.481 in 1914 to \$0.676 in 1919, or 40.5 percent (table 2). The rise in the printing trades, from a somewhat lower level of \$0.449, was 39.9 percent. The increases between 1939 and 1944 were 13.6 percent in the building trades and 13.1 percent in the printing trades. In both periods the increases for helpers and laborers were significantly larger than those for journeymen. In addition, the rise in the average hourly rate for helpers and laborers between 1919 and 1939 was appreciably greater than the rise in the journeymen's rate.

TABLE 2.—Union Hourly Wage Rates in Building and Printing Trades, 1914, 1919, 1939, and 1944¹

Trade	Union hourly wage rate				Percent of increase—	
	1914	1919	1939	1944	1914-19	1939-44
All building trades.....	\$0. 481	\$0. 676	\$1. 303	\$1. 480	40. 5	13. 6
Journeyman.....	. 533	. 741	1. 415	1. 500	39. 0	12. 4
Helpers and laborers.....	. 251	. 385	. 781	. 939	53. 4	20. 2
All printing trades.....	. 449	. 628	1. 182	1. 337	39. 9	13. 1
Book and job.....	. 410	. 591	1. 115	1. 251	44. 1	12. 2
Newspaper.....	. 558	. 732	1. 308	1. 505	31. 2	15. 1

¹ The average rates for years prior to 1944 are estimates calculated by use of indexes. These indexes were constructed from percentage changes in annual averages which in turn were computed from the quotations of those unions which furnished reports for identical occupations in two consecutive years.

Union hourly wage rates are collected once each year during the spring or summer. Data for 1914 and 1919 are for May 15; for 1939, June 1; and for 1944, July 1.

The averages are straight-time union rates, excluding such compensation as premium payments for overtime.

The average union rate for the newspaper trades was significantly higher in 1914 than the average for the book and job trades (\$0.558 as compared with \$0.410), but the difference was narrowed by a rise of 44.1 percent in the book and job trades as compared with 31.2 per-

cent in the newspaper trades. The difference was further narrowed between 1919 and 1939. Between 1939 and 1944 the newspaper rate rose slightly more than did the book and job rate, but the increase from 1914 to 1944 was significantly larger in the relatively low book and job rate than in the newspaper rate.

Union hourly rates in the building and printing trades rose less in both wars than the hourly earnings of industrial workers, partly because of the comparatively slight pressure of wartime demands on these trades, especially in printing and publishing. In addition, hourly earnings tended to rise more rapidly than basic rates because of the effects of premium payments for overtime and the shifting of workers to high-wage industries. When the years 1914 and 1939 are compared, it is seen that changes in union rates were not radically different from changes in average hourly earnings. In the building trades the average union rate rose 170.9 percent; in the printing trades, 163.3 percent. These may be compared with the rise of 183.9 percent in hourly earnings in factories, 147.5 percent in bituminous-coal mining, and 180.6 percent in railroad transportation.

FARM WAGE RATES

The data on farm wage rates published by the Bureau of Agricultural Economics of the Department of Agriculture show trends that are strikingly different from those of nonfarm wages. The weighted average rate per month (table 3) rose from \$25.13 in 1914 to \$51.13 in 1919, an increase of 103.5 percent, roughly comparable to the increase in average hourly earnings and average weekly earnings in manufacturing, mining, and railroads. Thereafter, however, the trends were radically different. Between 1919 and 1939, the general farm wage rate declined about 40 percent, in contrast to general increases in nonfarm wages. Between 1939 and 1944, the farm wage rate rose 155 percent, in contrast to much smaller increases in nonfarm wages. Even with the very much larger increases in World War II, however, the rise in farm wages during the whole of the period from 1914 to 1944 was smaller than the increase in either the weekly or the hourly earnings of industrial workers.

TABLE 3.—*Farm Wage Rates, 1914, 1919, 1939, and 1944*¹

Type of payment	Farm wage rate				Percent of increase—	
	1914	1919	1939	1944	1914-19	1939-44 ²
Per month:						
With board.....	\$22.62	\$43.29	\$27.39	\$74.00	91.4	170.2
Without board.....	29.74	56.63	35.82	85.70	90.4	139.3
Per day:						
With board.....	1.17	2.54	1.30	3.46	117.1	166.2
Without board.....	1.43	3.03	1.56	3.93	111.9	151.9
Weighted average rate per month.....	25.13	51.13	30.56	78.00	103.5	155.2

¹ U. S. Department of Agriculture, Bureau of Agricultural Economics: *Farm Wage Rates, Farm Employment, and Related Data* (pp. 3, 4); and *Farm Labor*, current issues.

² The extent of the increases appears to have been partly a result of a significant lag in 1939 in farm wage rates.

Thus, the relatively rapid wartime rise in farm wages followed a serious lag. The rise was accompanied by an increase of 28 percent from 1939 to 1944 in agricultural production and by an advance of

88.8 percent in the wholesale prices of farm products, in contrast to an increase of only 25.3 percent in the prices of all commodities other than farm products. Farmers were not merely able to pay much higher wages; they found it necessary to make substantial advances in order to obtain workers in competition with industrial employers. Increases in farm wage rates were facilitated early in the war by exemption from the wage-stabilization program and later by the relatively limited application of controls to farm wages.

AVERAGE ANNUAL SALARY-WAGE

The average annual salary-wage of all nongovernmental nonagricultural employees, on a full-time equivalent basis, according to rough approximations derived from national income and employment data, rose from \$753 in 1914 to \$1,283 in 1919, an increase of about 70 percent.³ The increase in the average salary-wage was naturally smaller than were the advances in average weekly earnings of wage earners in manufacturing, coal mining, and railroad transportation. The earnings of large groups of workers, such as those in retail trade and public utilities, are normally much more stable than are those of wage earners in factories, mines, and railroads. It may be assumed also that there was a smaller shift of employment from low-wage to high-wage occupations and industries in employment generally than in mines and railroads and especially in factories.

During the Second World War, the estimated average salary-wage of nongovernmental nonagricultural employees (full-time equivalent basis) rose from \$1,338 in 1939 to \$2,255 in 1944, or 69 percent.⁴ The increase was again, as in World War I, significantly smaller than the rise in the average weekly earnings of industrial wage earners. The causes of the smaller rise in the average salary-wage are similar to those applicable during the First World War, with the additional factor of the comparatively large effects of the increase in hours and in premium payments for overtime on the earnings of workers in factories and mines. The relative stability of salaries and also of wages in many employments is apparent in periods of downturn as well as upturn of the weekly earnings of industrial wage earners.

Consumers' Prices and Wholesale Prices in the Two World Wars

INDEX OF CONSUMERS' PRICES

The consumers' price index for moderate income families in large cities (table 4) rose 72.4 percent between 1914 and 1919, in contrast to a rise of 26.3 percent between 1939 and 1944. The index in both

³ Estimates of this nature, especially for the period of the First World War, should not be viewed in any sense as exact measures, but only as rough approximations. The averages are derived from estimates of national income and employment published by the National Bureau of Economic Research, in *Income in the United States: Its Amount and Distribution* (2 volumes), by W. C. Mitchell and others (New York, 1921, 1922), *The National Income and Its Purchasing Power*, by W. I. King (New York, 1930), and *National Income and Its Composition, 1919-1938* (2 volumes), by Simon Kuznets (New York, 1941). Figures for 1914 and 1919 are based on a larger and more dependable volume of data than are the data for the intervening years, because of the existence of an extensive body of census data for the 2 years.

⁴ Estimates for 1939 to 1943 were made by the U. S. Department of Commerce in connection with its national income work. The estimate for 1944 is derived from the Department of Commerce figure for 1943 and the 1943-44 percentage change as shown by Social Security Board data. The data of employment and compensation of workers covered by State unemployment-compensation laws and compiled by the Bureau of Employment Security of the Social Security Board indicate a rise of about 7 percent in the average salary-wage from 1943 to 1944. The Bureau of Labor Statistics figures of average weekly earnings in manufacturing and various nonmanufacturing industries show approximately the same average increase. The estimate of the Department of Commerce for all nonagricultural nongovernmental employees, when available, may indicate a slightly different percentage increase.

periods shows average changes in retail prices of selected goods, rents, and services bought by families of wage earners and lower-salaried workers in large cities. The changes in particular localities ranged widely above and below the average change. The index does not measure changes, either necessary or voluntary, in the total amount that families spend for living. Significant changes occurred in the index during the Second World War, especially before the working out of the national stabilization program, but in comparison with World War I, the increases were small.

The changes in consumers' prices as embodied in the various major items ranged widely during both periods. During the First World War, the prices of clothing rose 141.7 percent; housefurnishings, 121.0 percent; and food, 83.1 percent. The largest increase between 1939 and 1944 was the 43.0-percent rise for food, the next largest increase being a rise of 38.1 percent for clothing. The increase in housefurnishings (34.6 percent) was also greater than the average increase. The smallest increase in both periods was in rent, the rise during the First World War being 11.4 percent, and in the later period, 3.7 percent. Next to rent, the smallest increase during both periods was for fuel, electricity, and ice—46.2 percent from 1914 to 1919 and 10.9 percent from 1939 to 1944.

TABLE 4.—*Changes in Consumers' Price Index for Moderate-Income Families in Large Cities, 1914-23 and 1939-44*

Item	Index (1935-39=100)				Percent of Increase—	
	1914	1919	1939	1944	1914-19	1939-44
All items.....	71.8	123.8	99.4	125.5	72.4	26.3
Food.....	81.8	149.8	95.2	136.1	83.1	43.0
Clothing.....	69.8	168.7	100.5	138.8	141.7	38.1
Rent.....	92.2	102.7	104.3	108.2	11.4	3.7
Fuel, electricity, and ice.....	62.3	91.1	99.0	109.8	46.2	10.9
Housefurnishings.....	60.7	134.1	101.3	136.4	121.0	34.6
Miscellaneous.....	51.9	87.6	100.7	121.3	68.8	20.5

The comparative changes in the various items of the consumers' price index during the two wars should be viewed in the light of the changes between the wars. The general index was 19.7 percent lower in 1939 than in 1919 as compared with reductions of 40.4 percent for clothing, 36.4 percent for food, and 24.5 percent for housefurnishings. The indexes of the other items were higher in 1939 than in 1919, the increase for rent being 1.6 percent; for fuel, electricity, and ice, 8.7 percent; and for miscellaneous items, 15.0 percent. The increase from 1914 to 1944 in the general index was 74.8 percent, somewhat larger than the increase of 66.4 percent in the food index and much larger than the 17.4-percent rise in rent. The largest increase was in the index of miscellaneous items (133.7 percent), followed by 124.7 percent for housefurnishings and 98.9 percent for clothing.

Information regarding consumers' prices is much less detailed for the First World War than for more recent periods. The earlier indexes are more satisfactory for food (the major item) and for all items combined than for most of the components other than food.

The relative importance of the various major items in the consumers' price index is indicated broadly by the following percentage distribution of family-budget costs in 1935-39:

	Percent
Food.....	35.4
Clothing.....	11.0
Rent.....	18.8
Fuel, electricity, and ice.....	6.7
Housefurnishings.....	4.4
Miscellaneous.....	23.7
All items.....	100.0

Variations in the extent of price changes in the different items cause variations in percentage distribution of costs in the index. Thus, in December 1943, food accounted for 41.2 percent and rent for 17.2 percent of the total, these changes accompanying the comparatively large increases in food prices.

WHOLESALE PRICES

Wholesale prices rose more than consumers' prices during both World War periods (tables 4 and 5). The rise in wholesale prices from 1914 to 1919 was 103.5 percent, as compared with 72.4 percent in the consumers' price index; and from 1939 to 1944, 34.9 percent, as compared with 26.3 percent in consumers' prices. The wholesale price index, however, fell much more sharply between the two wars (44.4 percent) than did the index of consumers' prices (19.7 percent). The net result of the changes from 1914 to 1939 was a significantly larger increase in consumers' prices than in wholesale prices, the former being 38.4 percent higher than in 1914 and the latter only 13.2 percent higher. Thus, the consumers' price index, although less variable within the period from 1914 to 1939, was at a substantially higher level in 1939 in relation to 1914 than was the index of wholesale prices. Furthermore, although the wholesale price index rose more rapidly during the Second World War than did the index of consumers' prices, the latter was still, in 1944, at a higher level in relation to 1914 than was the former. The largest increase in wholesale prices during both periods of war was in farm products, and the next largest increase was in food. These major groups, farm products and food, underwent relatively large declines during the period 1919-39, but both rose more than all commodities combined in 1914-44.

TABLE 5.—Changes in Wholesale Prices, 1914-19 and 1939-44

Item	Index (1926=100)				Percent of increase—	
	1914	1919	1939	1944	1914-19	1939-44
All commodities.....	68.1	138.6	77.1	104.0	103.5	34.9
All commodities other than farm products.....	66.8	131.6	79.5	99.6	97.0	25.3
All commodities other than farm products and food.....	66.4	128.8	81.3	98.5	94.0	21.2
Farm products.....	71.2	157.6	65.3	123.3	121.3	88.8
Food.....	64.7	129.5	70.4	104.9	100.2	49.0

Hours of Work in the Two World Wars

AVERAGE WEEKLY HOURS

Average weekly hours in major employments declined from 1914 to 1919, in contrast to sharp increases from 1939 to 1944 (table 6). The average weekly hours of factory workers fell from 49.4 in 1914 to 46.3 in 1919, a reduction of 6.3 percent. The hours of employees of class I steam railroads fell from 54.1 to 46.3 per week, a decline of 14.4 percent. The evidence indicates nominal increases in the average hours of workers in bituminous-coal and anthracite mining.

The decline in average hours between 1914 and 1919 was caused by the shortening of work schedules. Some increases in average hours in World War II resulted from reductions in amount of part-time work, but a major factor was the lengthening of work schedules. The workweek in 1914 was so long that the general movement for reductions in hours was reinforced by arguments for increasing efficiency in war production. Reductions in scheduled hours had been so extensive by 1939 that the temporary lengthening of the workweek as an emergency measure encountered little opposition.

TABLE 6.—Average Weekly Hours in Manufacturing, Coal Mining, and Steam Railroads, 1914, 1919, 1939, and 1944

Industry	Average weekly hours				Percent of change—	
	1914 ¹	1919 ¹	1939	1944	1914-19	1939-44
Manufacturing.....	49.4	46.3	37.7	45.2	-6.3	+19.9
Bituminous-coal mining ²	35.2	35.5	27.1	43.4	+9	+60.1
Anthracite mining.....	41.6	42.1	27.7	40.7	+1.2	+46.9
Steam railroads (class I).....	54.1	46.3	43.5	48.9	-14.4	+12.4

¹ The sources and methods used in computing the averages were described in Monthly Labor Review, September 1940 (pp. 517-544), but the averages there given have been revised.

² Average weekly hours in bituminous-coal mining for 1944 were computed from figures of man-hours which include travel time in the mines. The figures of man-hours used for the earlier years exclude travel time. The inclusion of travel time of underground workers raises the general average by 7 or 8 percent.

Starting in 1939 from a much lower level (37.7 hours as compared with 49.4 hours in 1914), the average hours of factory workers rose by 1944 to 45.2 hours, only a little below the 1919 average of 46.3 hours. The increase in the hours of railroad workers was only 12.4 percent, as compared with 19.9 percent for factory workers, but the level of railroad hours throughout both periods was comparatively high.⁵

The relatively low levels of hours in coal mining were caused largely, before the wartime emergency, by part-time operation of the mines. Data compiled by the U. S. Bureau of Mines indicate that the number of days of operation of bituminous-coal mines averaged only 195 in both 1914 and 1919 and only 178 in 1939. The averages for anthracite mining were 245 in 1914, 266 in 1919, and 183 in 1939. Hours in coal mining are also affected by the hazardous and exhausting nature of the work. Before 1944, travel time in the mine was not included. Collective agreements provided for its inclusion in 1944 in bituminous-

⁵ The averages for railroad workers (table 6) are not wholly comparable to those for factory workers. The main difference is caused by the inclusion in railroad data of time credited to road train and engine men under the mileage or incentive basis of pay, some of which is not time actually on duty.

coal mining and in 1945, after the expiration of the old agreement, in anthracite mining. The new agreements, providing for portal-to-portal time as compensable time, recognized that travel time in the mine is in reality time on duty, under the control of employers. The ratio of travel time to "productive" time, when all workers are included, has varied with the relative number of underground workers, the depth of the mines, and the nature of the facilities for reaching the "face" or usual place of work in the mine. Rough comparability of the averages is attainable, however, by raising the earlier averages by 7 or 8 percent.

UNION HOURS IN BUILDING AND PRINTING TRADES

Comparable hours data are available for the periods of the two World Wars from union agreements in the building and printing trades. The hours as specified in these agreements are straight-time hours for a full workweek. The averages therefore differ both from scheduled hours and from average hours as affected by such factors as labor turn-over, part time, and overtime. (See table 7.)

TABLE 7.—*Union Weekly Hours in Building and Printing Trades, 1914, 1919, 1939, and 1944*¹

Trade	Union weekly hours				Percent of change—	
	1914	1919	1939	1944	1914-19	1939-44
All building trades.....	46.4	45.6	39.4	39.9	-1.7	+1.3
Journeyman.....	45.8	45.1	38.9	39.8	-1.5	+2.3
Helpers and laborers.....	48.0	47.0	40.8	40.0	-2.1	-2.0
All printing trades.....	49.5	49.5	39.0	39.0	0	0
Book and job.....	51.0	51.0	39.7	39.7	0	0
Newspaper.....	44.9	44.9	37.8	37.5	0	-.8

¹ The average hours for years prior to 1944 are estimates calculated by use of indexes. These indexes were constructed from percentage changes in annual averages which in turn were computed from the quotations of those unions which furnished reports for identical occupations in 2 consecutive years.

Data of union weekly hours are collected once each year during the spring or summer. Data for 1914 and 1919 are for May 15; for 1939, June 1; and for 1944, July 1.

The hours are averages of regularly scheduled straight-time hours under the provisions of union agreements and are not affected by part time or overtime.

The weekly hours of union workers in both the building and printing trades show little change during both wars. Union hours in the building trades declined slightly in the First World War and rose somewhat from 1939 to 1944. The most important change in the union hours of both groups of trades was a decline between the two periods. The union agreements in the building trades indicate a reduction from 45.6 hours in 1919 to 39.4 hours in 1939, a decline of 13.6 percent. The reduction in the printing trades was larger, the average falling from 49.5 hours in 1919 to 39.0 hours in 1939, or 21.2 percent. The average hours actually worked by members of unions are not available, but it is apparent that the hours as embodied in union agreements represent neither the levels nor the trends of average weekly hours. The average for all wage earners in private building construction was 32.4 hours per week in 1939 and 39.5 hours in 1944. These averages reflect the comparative instability of employment in the building trades. The averages for all wage earners in printing, publishing, and allied industries indicate much greater

stability of employment and a much smaller effect of such factors as part time, overtime, and labor turn-over. The average for 1939 was 37.4 hours per week, and that for 1944 was 41.0 hours. Comparable figures for the period of the First World War are not available.

FULL-TIME OR SCHEDULED HOURS

Changes in average weekly hours reflect the combined effects of changes in scheduled or normal hours of shifts or plant operation and of such additional factors as part time, overtime, and labor turn-over. The Bureau of the Census collected data relating to prevailing hours of the full-time scheduled workweek of wage earners in manufacturing industries for the years 1914 and 1919. These figures indicate a decline from 55.1 hours in 1914 to 50.8 hours in 1919. The curtailment of the regular or full-time workweek is indicated also by the following tabulation,⁶ computed from data of the U. S. Census of Manufactures:

Scheduled workweek of—	Percent of wage earners in plants with specified workweek, in—	
	1914	1919
Under 48 hours.....	11.8	16.1
48 hours.....		32.6
Over 48 and under 54 hours.....	13.5	16.5
54 hours.....	25.8	9.0
Over 54 hours and under 60 hours.....	22.0	13.8
60 hours.....	21.1	9.0
Over 60 hours and under 72 hours.....	3.5	3.0
72 hours.....	1.5	
Over 72 hours.....	.8	
Total.....	100.0	100.0

Statistical records of hours of work in World War II emphasize average hours as affected not only by work schedules but also by such factors as labor turn-over, part time, and overtime. The concept of straight-time hours as distinguished from hours for which premium payments are made acquired increasing importance because of the enactment of the Fair Labor Standards Act and the general inclusion in collective agreements of provisions for premium payments for overtime. The usual provision in collective agreements called for premium payments after 40 hours, but there were many departures from this rule, as in coal mining, railroad transportation, and some of the apparel trades.

Scheduled hours of work in the Second World War rose rapidly. The majority of wage earners in more than half of 31 selected war industries were working, as early as October 1942, in plants with a scheduled workweek of at least 48 hours.⁷ Among these war industries, the continuous-process industries, such as blast furnaces, steel works and rolling mills, had kept as a rule the 40-hour week but later adopted the 48-hour week under the provisions of an Executive order of February 9, 1943. This order and the ensuing regulations issued by the War Manpower Commission called for the extension of the 48-hour week not only to war industries but also to all other employments in areas of critical labor shortage.

⁶ Monthly Labor Review, April 1944 (pp 838-855) (Reprinted as Serial No. R 1635.)

⁷ Hours of Work in Selected War Industries, October 1942 (U. S. Bureau of Labor Statistics, Washington, 1942).

Recent Price Trends in Foreign Countries¹

Situation of a Typical Worker in France

JEAN LE BREQUE is a typical French worker in a large truck factory in Lyons. He is living in a country where homes, factories, and transportation facilities have been damaged by war and enemy occupation, and where civilian supplies are extremely short. Before and during most of the war, his was one of 200 families living in a model housing project, the Cité Ouvrière, near the plant where he works. The project was almost entirely destroyed by air raids in the spring of 1944. His family had to move to crowded quarters at some distance from the plant. He used to go to work on a bicycle but recently the tires gave out, and he has not been able to buy new ones.

Le Breque's pay envelope, like that of the average French worker, holds over three times as many francs as before the war. Early in 1945 there was a general upward revision of French wage rates, and the difference between wages in Paris and in the rest of the country was reduced, but in early summer Lyons workers still found it difficult to feed, clothe, and house themselves and their families.

Twenty-five percent of the workers in the factory where Jean Le Breque is employed have been found to have tuberculosis. Most of them are under normal weight and the health of the younger workers is particularly bad.

At present the rise of prices for food is one of Jean Le Breque's special worries. Ceiling prices of rationed goods are said by the Ministry of Finance to have somewhat more than tripled since August 1939, but the ration is not large enough to supply all the food needed to prevent actual hunger, and prices both of unrestricted items and on the black market have gone up far beyond Le Breque's ability to pay. In order to encourage increased farm production, French authorities removed fresh fruits and vegetables from price controls and the prices of these commodities rose sharply during the spring. The Government planned to open retail outlets at which housewives could buy at prices fair both to grower and to consumer. Frosts early in May damaged fruit and nut trees, vineyards, and the early potato crop. Insecticides are in short supply and insect damage has been serious for crops in some areas.

The plant where Jean Le Breque works has a farm of about 600 acres which is managed by the workers, and they also have the responsibility for procurement of food for the factory canteen, finding lodging for the labor force, and repairing and rebuilding the workers' housing project. An economist from the staff of the United States Embassy in Paris who visited this Lyons plant in May reported² that it had been taken over by the French Government because the owner and director of the factory had been a collaborationist. The works are now managed by a director appointed by the Regional Commissioner of the French Republic and by a council of the workers

¹ Prepared by Faith M. Williams, Bureau's consultant on costs and standards of living, with the assistance of the Bureau's staff on foreign labor relations.

² Consular report from Rifat Tirana, U. S. Embassy in Paris, May 6, 1945.

which takes part in and shares the responsibilities for management of the enterprise. The director of the plant stated that—

Apart from the working out of directives, and of policies and relations with central authorities with respect to the procurement and allocation of resources, most of the responsibilities for the management of the works, as well as for the living and other conditions of the workers, has been vested in the workers themselves. There was obviously a fervor on the part of the workers involved, which had enabled them to overcome very serious obstacles in the carrying out of their duties. They had apparently continued to work throughout the winter months, often in open sheds with little or no roofing, practically no glass and sometimes at a temperature of minus 10 degrees centigrade, and poorly fed and clothed.

The yield in output per worker was asserted by the director to have increased by 40 to 50 percent by comparison with 1943, when the factory was being utilized to the full. It was also stated that there were fewer accidents, and that as a result of workers' council, suggestions were continually being put before the attention of the management, either for improvement in production, or in increasing the work load on individuals who believed that they were not producing as much as they could, or being utilized to the best of their capacities. Absenteeism was said to account for 14 percent as against roughly 25 percent before liberation.

Absenteeism in plants throughout the area was reported to be due in part to the time required by workers to go into the farm areas outside the city for food needed for their families. Shortages of meat, fats, and oils were reported to be general throughout France. Supplies of clothing and household goods were also very low, and recent reports from France have noted that "in a substantial percentage of the shops, stocks are so depleted as hardly to warrant keeping the establishment open." Railroad bridges were destroyed, supplies of railroad equipment were far below prewar levels, and tracks and equipment were badly in need of repair. It has, thus, been very difficult to distribute fairly among the population the goods that are available.

Very little information is available in the United States on price changes in France during the war period. In January 1944, it was stated that the index of cost of living at the end of 1943 was 260 as compared with 100 in August 1939. Clothing prices had quadrupled, food prices had more than doubled, with smaller increases for light and rent. Recently, as noted, the Ministry of Finance estimated that prices of rationed goods have somewhat more than tripled and that prices of other goods are much higher. The above description of the situation of a typical French worker in Lyons has been given in some detail because more specific information about working and living conditions is available from the Lyons area than from most other cities abroad at the present time. This material, which comes from the reports of well-trained observers on the spot, makes it clear that price increases, which are characteristic of war and postwar periods, simply reflect shortages of consumers' goods, transportation, and production equipment, and the decline in productive capacity which comes with war suffering and war fatigue.

General Situation in Europe, Other than France

The situation in other countries in Europe which have been the scene of conflict is similar in varying degree to that in France. Men, women, and children in every country of the world have been affected in one way or another by the shortages which follow the diversion of a large proportion of the population to the armed forces and to the production of war materials. In the countries where production equipment and transportation facilities have been destroyed and

the health of the population has been undermined by food shortages imposed by the Axis powers, the situation is inevitably much worse than in countries far from the combat zones. There is, however, no country, for which information is available, in which there have not been wartime shortages of consumers' goods and consequent price increases.

Governments generally have attempted to bring about a fair distribution of the available supplies of consumers' goods by price controls and rationing. The success of the controls imposed has varied widely from country to country and has been determined in important part by the method of war financing used by the government. In countries where a large proportion of war expense has been met by taxation and by borrowing directly from individuals through war bonds issued in small denominations, part of the surplus purchasing power which inevitably accumulates in wartime has thus been removed from competition for available supplies of civilian goods. Where the major part of government war expenditure has been financed by issuing fiat currency, the price situation has been much more difficult to control. Obviously, the greater the war damage and the smaller the supplies of consumers' goods, the harder it is to control prices. In countries where supplies have not been large enough to meet the rations set for civilians, or where the rations were not large enough to maintain the population at a standard of living acceptable to the majority of the people, large black markets have developed. In addition, for effective administration of price controls there had to be a strong central government with a body of well-trained workers, high morale among the population, and a functioning transportation system to carry goods from production areas to centers of population.

There are no published records of wartime trends of prices in the Soviet Union, but people who have been in that country during the war period report the maintenance of official prices on rationed items (which include all kinds of consumers' goods) and a general acceptance by the population of the very low ration level. Invasion of the country by the Axis forces made it necessary to set the rations far below prewar consumption, and the maintenance of price controls was made possible only by the high morale of the civilian population. Foods produced in excess of the amounts rationed are sold in special stores by the Government and in free markets by farmers; prices are not controlled on the markets but tend to conform to the prices fixed for the special stores which are much higher than prices for goods sold on the rations.

In the United Kingdom and the British Dominions, price-control and rationing systems have been relatively effective. In some of these countries, price controls were not initiated until after considerable rise in prices had occurred, at least part of which was due to higher costs of shipping and price increases in the countries from which goods were imported. Food production was stimulated by allowing farm prices to rise, and food prices were subsidized to some extent at the wholesale or the retail level.

Until the autumn of 1944 average prices in Germany were maintained at relatively stable levels by drawing supplies from the occupied countries and by a stern if not ruthless administration of price-control and rationing regulations. By the spring of 1944 there were reports of extreme shortages of meat and fats and of clothing and household goods, in Germany, and by the fall of the year there were

reports that an extensive black market had developed. Since the capitulation of Germany there have been serious shortages of consumers' goods and prices have been controlled by the Allied military authorities at stable levels.

Prices in the northern countries which were occupied by Germany or which were under German control apparently rose by 50 to 100 percent during the war period. No price indexes are available for Poland. There, prices for rationed goods were controlled during the German occupation, and no data are available to show the extent of the black market.

Although the economic and political situation in Spain has been in many ways, different from that in Portugal, the two countries have been alike in that their normal imports have been largely cut off during the war period, and that extensive buying by the Axis powers at relatively high prices reduced supplies and raised prices in both countries. Official cost-of-living indexes show retail prices in November 1944 as about 80 percent above 1939 levels in both countries. These indexes cover only a few commodities, and it may be that a more complete price coverage would show that the increase has been even greater.

In the countries of southern Europe, which have been the scene of armed conflict almost continually since 1940 or 1941, the population has suffered greatly not only because of shortages of essential supplies, but also because the disorganization of government administrations has made it impossible to establish effective price-control and rationing systems. Reports in the press in these countries are confirmed by observations by returned members of the United States Armies. They show extreme price increases for even the most essential foods.

The years of World War II have brought considerable inflation in the price structure of the middle eastern countries and Turkey, although the situation has never been so extreme as in such war areas as Greece and Italy. Allied military expenditures in the Middle East and competitive bidding by the Axis and the Allies in Turkey, while increasing the purchasing power and the amount of currency in circulation, also reduced the supply of consumer goods and monopolized the means of transportation. Consumption levels in the cities of the Middle East were drastically lowered and low-income groups suffered. Figures on increases in prices in this area show that retail prices to wage earners' families rose about 150 percent in Palestine, almost 200 percent in Egypt, and almost 700 percent in Iran from August 1939 to late 1944 or early 1945. In Iran the control of supplies and prices was extraordinarily difficult because of the influx of war workers of various kinds and the insufficiency of transportation facilities.

General Situation in South America and the Far East

In South and Central America, as in Europe, official price indexes show that price increases have varied greatly from country to country. In Argentina, prices have not increased greatly. A large proportion of the consumers' goods bought by families of Argentinian wage earners is produced in the country, and food prices have been depressed because some of the markets for foods exported in peacetime were cut off by shipping shortages and other factors. At the other extreme is Bolivia which imports an important proportion of its foodstuffs.

The official cost-of-living index for La Paz shows that the cost of living almost tripled during the war period. Figures for Chile, Mexico, and Nicaragua indicate that the retail prices have more than doubled since 1939, and those for Colombia, Brazil, Costa Rica, and Peru show advances of 50 to 80 percent.

Difficulties with the price situation are most extreme in China. Before the war, price indexes were compiled for a number of Chinese cities. The series for which current figures are now available in the United States is that of the Nankai Institute of Economics, applying to Chungking. Using average prices for July 1936–June 1937 as 100, the wholesale-price index for Chungking for the third week in May 1945 was 192500 and the index of cost of living for all classes in the population was 144700. In evaluating the price situation in China it is important to remember that the country has been at war with Japan since 1937 and that its customary trade with Manchuria was interrupted by Japanese aggression as early as 1931. Price control has been especially difficult because a large proportion of the population is rural, the transportation system has never been adequate to the needs of the country, and a large part of the Chinese territory was occupied by the Japanese army. Supplies of essential goods have been totally inadequate to the needs of the population. The index of cost of living in Chungking has included open-market prices of a number of commodities that were unobtainable at official prices. The use of open-market prices makes the index conform more closely to the actual conditions met by Chinese workers. The Chinese Government is giving consideration to the stabilization of the price situation, as one of its most important financial objectives in the postwar period.

The enormous depreciation of the value of the Chinese currency has made it necessary to increase wages throughout the war. The scattered statistics available here show, however, that wages have not kept pace with the increases in living costs, in spite of the fact that some factories have provided food and housing for part of their workers and some have paid part of the wage in rice. For example, a report on the situation of wage earners in a Government factory in 1940, in Kunming, shows that "even a skilled worker did not earn much more than the unskilled farm laborer and the position of the unskilled factory workers was decidedly inferior." At that time civil servants were paid allowances for dependents, which placed them in a better economic situation than wage earners.

The price data available in this country for Japan extend through February 1944. They do not show such extreme price changes as in China; however, the indexes appear to be based on official price ceilings, as reports indicate that Government efforts at control of supplies and prices had not been successful and that there had been great dissatisfaction among the people at the extent of the black market and the heights to which black-market prices had risen.

Purchasing Power of Wages During the War Period

When prices rise with shortages of consumers' goods, the families of wage earners and clerical workers whose incomes are fixed by custom or by government order suffer more than other economic groups whose incomes tend to rise with rising prices. Many reports

on wages in specific occupations or in specific industries abroad have come to the United States during the war period, but inclusive indexes of wage rates, or of earnings, are available from very few countries. The data which have been received show that in this, as in other wars, wage rates and earnings have risen in all countries; in many, however, wage rates have not risen as fast as the cost of living, and in countries where inflation has been extreme, increases in earnings have fallen far below increases in living costs.

In some countries, wage rates during the war period were definitely adjusted upward as the official indexes of retail prices rose. In the United Kingdom voluntary agreements for adjusting wages to changes in the official cost-of-living index applied to 1½ million workers in 1939 and 2½ million in 1944. However, the Government did not legislate in this field.

Peacetime procedure in Australia required that basic wages should be adjusted periodically as changes occurred in the official retail-price index. When the price-stabilization measure of April 12, 1943, failed to keep the index stable, the Government paid the added wage costs, as price ceilings prevented employers from passing the increased wage bill on to consumers. By order of October 24, 1941, the Canadian Government introduced the payment of cost-of-living bonuses in industry generally, making the bonus mandatory for 1-percent increases in the cost-of-living index. The system was abolished on February 15, 1944, and the prevailing bonuses were incorporated into existing wage rates to form a basic wage. No further rises in wages were to be permitted for the duration of the war, except to eliminate gross inequities, and then only if such increases would not necessitate price rises. The practice in New Zealand under the stabilization program of December 15, 1942, was to vary wages according to changes in the wartime price index, but on June 16, 1944, the Arbitration Court was freed from the obligation of making such adjustments, although it might do so in its discretion.

Immediately after the outbreak of the war in Europe, plans for tying wages to the cost-of-living index were discussed in Norway, Denmark, and Sweden. On November 13, 1939, the Danish labor organizations reached an agreement with the employers' association, providing for specific increases in wages each quarter, provided the cost-of-living index rose 3 or more points during the quarter. In Norway, the wages of transport workers were tied to the cost-of-living index in December 1939, and the question of extending this arrangement was in process of discussion when the Nazis invaded Norway and Denmark in April 1940. These agreements were canceled by the Nazis. In Sweden, workers' and employers' associations agreed on December 16, 1939, to adjust wages quarterly according to the fluctuations in the cost-of-living index. The agreement was renegotiated annually up to 1945; however, wages did not rise after October 1942 to the end of the war, as the index, because of Government price-stabilization measures, remained relatively stable.

Statistics of Prices

Most governments publish prices of the most important foods consumed in their countries and most of the governments of the major countries publish indexes of prices at both the wholesale and retail

levels. The war interrupted many of these index series, but it is possible to assemble price indexes from a number of important countries which indicate price trends from 1939 to late 1944 or early 1945.

RETAIL-PRICE INDEXES

The retail-price indexes shown in table 1 are called "cost-of-living indexes" except in Australia and New Zealand. They are designed to measure changes in the cost of a fixed bill of goods representing the more important goods and services purchased by city wage earners.³ These indexes do not show changes in family expenditures during the war period or differences in the cost of the same standard of living from country to country; they show simply the average rate of price changes at retail within each country. The Australian retail-price index is weighted by the per capita consumption of goods consumed by the entire Australian population. The kinds of goods and services included in these indexes, methods of weighting and computing them, and methods of collecting the prices on which they are based differ considerably from country to country, and the series are consequently far from comparable. They do, however, provide a basis for understanding how shortages of consumers' goods and the effectiveness of price-control measures have affected the retail prices paid by wage earners.

The trends in the price indexes since August 1939, in the various countries for which data are available, are shown in table 1. The number of commodities covered (shown—where available—at the beginning of the table) provide a rough guide to the representativeness of the series. In some countries, the indexes are based on official prices and do not take account of violations of ceilings set by price-control authorities. In others, field representatives of the government collect prices in personal interviews with store managers and buyers in stores where wage earners buy regularly, as is done by field representatives of the Bureau of Labor Statistics in the United States. These indexes do not include black-market prices which may be paid in fly-by-night hide-aways, but do take account of violations which occur in regular shops.

Diversion to war uses of many of the materials customarily used in producing consumers' goods, the interruption of normal trade, and shortages of manpower combined, during the war period, to reduce the quality of goods available to civilians throughout the world. Some of the types of goods included in the indexes in 1939 could not be purchased by civilians in the war years; for other types of goods, only substitutes were available. As far as one can judge from reports available in the United States, none of the statistical agencies responsible for the computation of these indexes allowed them to decline when wartime substitutes of lower price and lower quality were introduced into the price series used in their computation. It is generally reported, however, that all of the increases in costs resulting from wartime deterioration in quality were not reflected in any of the indexes, because of the lack of statistical measurements of quality change.

³ In the case of China, the cost-of-living index given in table 1 is that prepared by the Nankai Institute of Economics and represents changes in retail prices paid by all economic groups in the city of Chungking. The Institute prepares an index of cost of living of laborers in Chungking but complete figures for this index are not available in the United States. The index for Rio de Janeiro given in table 1 applies to goods purchased by moderate-income families (see footnote to table 1).

TABLE 1.—*Indexes of Retail Prices (Living Costs) in Various Countries, August 1939–July 1945*¹

[August 1939=100]

Month	New Zealand	Argentina (Buenos Aires)	Germany	Canada	Australia	United Kingdom	Japan	Sweden	Switzerland
Number of Items included ²	221	27	114	147	(*)	70	156	170	(*)
1939: August	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
December	102.2	105.7	99.3	103.0	101.1	111.6	106.7	(*)	103.6
1940: August	104.7	102.6	104.6	105.1	104.7	119.4	122.4	114.8	110.2
1941: January	105.4	100.6	103.3	107.4	108.6	126.5	118.7	121.5	119.0
December	110.6	111.7	104.5	114.9	112.4	129.7	122.5	130.6	134.3
1942: January	110.1	109.6	104.9	114.5	(*)	129.0	123.8	134.3	135.8
February	108.5	110.4	106.4	114.8	(*)	129.0	123.4	(*)	137.2
March	108.3	112.1	106.8	115.0	115.1	129.0	124.0	(*)	138.0
April	108.9	112.0	107.3	115.0	(*)	128.4	125.0	138.0	139.4
May	110.3	111.6	108.0	115.2	(*)	129.0	125.7	(*)	140.1
June	110.4	112.7	109.1	115.8	118.1	128.4	125.3	(*)	140.9
July	110.7	111.5	110.3	117.0	(*)	129.0	126.1	139.8	143.1
August	112.4	110.7	(*)	116.8	(*)	129.7	126.1	(*)	142.3
September	113.0	111.6	106.2	116.5	120.8	129.0	126.3	(*)	142.3
October	113.5	112.0	105.9	116.9	(*)	129.0	126.2	140.7	143.8
November	114.3	111.4	106.2	117.7	(*)	129.0	126.2	(*)	145.3
December	113.4	112.4	106.7	117.9	122.5	129.0	127.3	(*)	146.0
1943: January	(*)	114.8	107.4	116.2	(*)	128.4	127.9	140.7	146.7
February	(*)	114.4	107.9	116.0	(*)	128.4	129.8	(*)	146.7
March	114.6	120.3	108.1	116.3	122.6	128.4	130.9	141.7	146.7
April	(*)	118.8	108.4	116.7	(*)	127.7	133.9	(*)	148.2
May	(*)	118.5	108.8	117.2	(*)	128.4	134.7	(*)	148.2
June	113.4	115.9	109.5	117.6	124.9	127.7	135.8	140.7	148.2
July	(*)	106.5	111.2	117.9	(*)	129.0	136.3	(*)	148.9
August	(*)	107.0	111.1	118.3	(*)	128.4	136.3	(*)	148.9
September	112.9	107.9	108.3	118.5	123.8	127.7	136.7	139.8	148.9
October	(*)	108.1	108.0	118.4	(*)	128.4	136.7	(*)	149.6
November	(*)	110.2	108.6	118.5	(*)	128.4	138.9	(*)	149.6
December	113.5	109.5	108.8	118.4	122.6	128.4	139.8	140.7	149.6
1944: January	(*)	109.7	109.4	118.1	(*)	128.4	141.3	(*)	150.4
February	(*)	108.2	109.7	118.0	(*)	129.0	142.5	(*)	150.4
March	113.9	110.7	110.1	118.1	122.8	129.0	(*)	139.8	150.4
April	(*)	108.5	111.0	118.2	(*)	129.0	(*)	(*)	151.1
May	(*)	109.0	111.0	118.3	(*)	129.0	(*)	(*)	151.1
June	113.5	109.5	112.0	118.1	122.9	129.0	(*)	139.8	151.8
July	(*)	111.3	115.0	118.1	(*)	129.7	(*)	(*)	152.6
August	(*)	106.5	114.0	118.0	(*)	130.3	(*)	(*)	151.8
September	113.7	110.2	111.0	117.9	123.3	130.3	(*)	140.7	151.8
October	(*)	112.1	110.0	117.7	(*)	129.7	(*)	(*)	151.8
November	(*)	110.9	111.0	118.0	(*)	129.7	(*)	(*)	151.8
December	113.8	115.3	111.0	117.6	123.0	129.7	(*)	139.8	151.8
1945: January	(*)	121.2	(*)	117.7	(*)	130.3	(*)	(*)	152.6
February	(*)	123.3	(*)	117.7	(*)	130.3	(*)	(*)	152.6
March	114.1	132.5	(*)	117.8	122.6	130.3	(*)	139.8	152.6
April	(*)	(*)	(*)	117.8	(*)	130.3	(*)	(*)	152.6
May	(*)	(*)	(*)	118.1	(*)	131.0	(*)	(*)	153.3
June	113.9	(*)	(*)	118.7	122.9	131.6	(*)	139.8	153.3
July	(*)	(*)	(*)	119.3	(*)	133.5	(*)	(*)	(*)

See footnotes at end of table

TABLE 1.—Indexes of Retail Prices (Living Costs) in Various Countries, August 1939–July 1945¹—Continued

[August 1939=100]

Month	Denmark	Norway	Brazil (Rio de Janeiro)	Mexico (City of Mexico)	Chile (Santiago)	Palestine	Bolivia (La Paz)	Iran	China (Chungking)
Number of items included ²	(9)	170	33	23	31	(9)	56	(9)	48
1939: August	* 100.0	100.0	* 100.0	100.0	100.0	(9)	100.0	100.0	¹⁰ 204.0
December	* 103.7	106.0	101.5	99.6	105.6	(9)	115.5	102.6	282.0
1940: August	* 127.1	115.9	105.2	99.1	115.6	(9)	124.9	111.8	652.0
1941: January	141.1	130.9	108.8	101.0	116.5	(9)	135.0	122.8	1230.0
December	* 151.4	142.6	120.5	115.1	142.5	(9)	182.5	189.1	2930.0
1942: January	151.4	143.2	124.0	113.7	144.0	175.0	186.9	203.9	2970.0
February	(9)	143.6	124.2	112.7	146.9	182.0	198.7	215.4	3080.0
March	(9)	144.0	124.2	115.1	154.0	186.0	197.3	222.9	3350.0
April	150.5	144.6	123.7	118.8	159.8	186.0	198.7	240.7	3870.0
May	(9)	145.6	124.4	120.2	163.3	184.0	202.0	245.7	4340.0
June	(9)	146.1	127.2	120.9	162.2	185.0	202.7	251.5	4310.0
July	154.2	146.6	129.1	120.6	162.7	186.0	204.7	261.3	4660.0
August	(9)	146.6	127.0	120.5	168.8	197.0	204.7	264.9	4940.0
September	(9)	146.3	135.2	125.3	171.7	202.0	205.4	278.3	5230.0
October	155.1	(9)	137.3	125.3	177.6	205.0	208.1	297.0	5570.0
November	(9)	(9)	139.7	127.9	177.4	209.0	233.3	341.1	6090.0
December	(9)	(9)	141.1	127.8	179.1	211.0	236.0	385.0	6290.0
1943: January	156.1	147.8	140.9	130.9	176.5	215.0	238.7	435.7	6780.0
February	(9)	148.0	141.2	136.8	179.4	219.0	250.8	503.6	7890.0
March	(9)	148.4	141.4	140.6	181.1	218.0	248.5	552.4	7970.0
April	156.1	148.9	140.8	148.0	189.0	226.0	248.5	670.7	8170.0
May	(9)	149.2	141.0	158.8	193.2	240.0	254.2	645.8	9510.0
June	(9)	149.4	141.1	160.1	196.5	248.0	256.2	620.3	10900.0
July	154.2	149.9	142.9	165.6	193.9	247.0	258.2	650.8	11800.0
August	(9)	150.0	146.7	168.4	194.3	243.0	255.6	695.5	13700.0
September	(9)	149.4	149.0	169.6	196.4	243.0	254.5	704.8	14400.0
October	156.1	149.5	147.1	170.5	198.1	239.0	254.9	731.7	15500.0
November	(9)	149.9	147.2	173.1	196.5	230.0	255.6	758.0	17200.0
December	(9)	150.2	147.6	174.7	193.4	230.0	255.9	763.7	18300.0
1944: January	156.1	150.3	150.8	177.7	196.4	233.0	261.6	761.5	19200.0
February	(9)	150.5	151.3	180.9	194.3	232.0	263.3	768.0	22200.0
March	(9)	150.7	152.1	186.7	198.2	236.0	273.1	770.0	28900.0
April	157.0	150.9	153.3	193.3	205.6	235.0	273.7	786.4	33600.0
May	(9)	151.1	156.6	197.9	210.0	234.0	266.3	797.7	40700.0
June	(9)	151.3	156.6	202.6	209.2	238.0	266.7	796.3	44500.0
July	157.0	151.4	162.4	208.5	209.3	244.0	267.0	780.7	45700.0
August	(9)	151.6	162.8	206.5	215.5	255.0	267.0	795.6	43300.0
September	(9)	151.2	163.8	209.4	226.2	249.0	267.0	777.1	44500.0
October	157.9	151.1	164.8	211.9	235.0	248.0	273.7	(9)	45300.0
November	(9)	151.2	167.4	208.7	234.6	248.0	275.4	(9)	49300.0
December	(9)	151.5	168.6	200.5	222.4	252.0	275.4	(9)	52800.0
1945: January	157.9	151.6	169.0	201.3	221.4	254.0	276.4	(9)	63300.0
February	(9)	151.7	183.1	201.7	222.8	253.0	276.4	(9)	86200.0
March	(9)	151.9	183.3	202.3	224.0	258.0	277.4	(9)	110500.0
April	158.9	153.8	183.1	205.0	226.8	257.0	274.1	(9)	127500.0
May	(9)	153.9	(9)	206.9	227.6	257.0	(9)	(9)	* 144700.0
June	(9)	154.4	(9)	209.1	229.8	(9)	(9)	(9)	(9)
July	158.9	154.6	(9)	213.5	(9)	(9)	(9)	(9)	(9)

¹ These indexes show changes in retail prices and rents in cities. In general they are similar in construction and design to the index of consumer prices to moderate-income families in large cities prepared by the U. S. Bureau of Labor Statistics, although different methods are used to collect the prices in different countries, and most indexes do not cover as many items as the United States index. The indexes given for Australian and New Zealand cities are weighted by the per capita consumption of the general population of the country, and are called retail-price indexes; those for Chungking represent changes in prices for goods purchased by all economic groups in the city's population; those for Rio de Janeiro represent changes in prices to "middle income" families except that there is included in the index of food prices a second Brazilian food index, which presents changes in food prices paid by families of wage earners in that city. The food-cost index for middle-income families in Rio de Janeiro has risen less than that for wage earners' families. None of these indexes measures increases in living costs caused by moving to war production centers, the employment of wives in war plants, being "bombed out," or other wartime costs not connected with price changes, except that the indexes for Sweden and Denmark include increases in income taxes. None of these indexes fully reflect increases in costs caused by quality deterioration of consumers' goods in the war period, because of the fact that in no country are statistical measurements of the quality of such goods available.

² The number of items given represents the types of goods and services priced, and not the number of grades or qualities priced for a given item. The entry applies to the most recent date for which information is available.

³ The series given represents a combination of indexes with different weighting, prepared in different periods of time for overlapping dates.

* July 1939 prices=100.

* Figure relates to October.

* Figure relates to July.

* Figure relates to February.

* Not available.

* "Pre-war" prices=100.

¹⁰ July 1936–June 1937 prices=100.

* Third week in May.

WHOLESALE-PRICE INDEXES

Indexes of prices in primary markets since the beginning of the war period are available in the United States for 16 major foreign countries.⁴ In general, these indexes show greater increases since August 1939 than the indexes of changes in retail prices to wage earners and clerical workers. This difference in the rate of rise is explained in part by the greater stability of retail prices at all times, and in part by the application of subsidies to essential consumer goods (notably foods) which bulk large in the retail-price indexes but which represent

TABLE 2.—Indexes of Wholesale Prices in Various Countries,
August 1939–July, 1945¹

[August 1939=100]

Month	New Zealand	Argentina	Germany	Canada	Australia	United Kingdom	Japan	China
1939: August.....	100.0	100.0	100.0	100.0	² 100.0	100.0	100.0	³ 225.0
December.....	102.9	118.3	100.5	113.0	106.2	123.2	107.5	316.0
1940: August.....	113.0	119.3	103.5	114.4	116.1	142.8	109.6	698.0
1941: January.....	117.5	121.5	104.0	117.0	116.7	152.4	111.5	1170.0
December.....	127.0	164.9	⁴ 105.3	129.5	122.2	158.9	189.0	2760.0
1942: January.....	125.6	170.1	106.2	130.4	123.0	159.4	120.7	3010.0
February.....	124.7	172.6	105.9	130.8	124.4	161.6	121.0	3300.0
March.....	125.2	174.0	106.1	131.5	125.3	161.9	121.0	3670.0
April.....	125.3	177.9	105.8	131.4	127.6	162.7	122.4	4100.0
May.....	130.3	181.7	107.1	131.7	133.4	163.6	122.8	4440.0
June.....	133.2	183.2	106.7	132.5	136.5	162.7	122.9	4810.0
July.....	134.3	185.7	107.1	132.9	136.3	163.1	123.1	5170.0
August.....	134.0	188.1	(⁵)	132.2	137.6	161.9	123.8	6060.0
September.....	134.7	188.3	107.5	132.8	138.6	162.0	123.8	6730.0
October.....	134.3	189.0	107.4	132.9	137.4	163.0	124.1	7370.0
November.....	136.0	190.8	107.2	134.3	137.2	164.0	124.2	7760.0
December.....	136.3	187.1	107.7	134.2	137.8	164.4	124.6	8010.0
1943: January.....	134.9	191.2	108.2	134.3	135.7	165.2	126.4	8490.0
February.....	135.8	193.9	108.3	134.9	137.0	165.2	126.7	9230.0
March.....	136.2	194.4	108.3	136.2	138.9	165.3	127.9	9530.0
April.....	139.1	195.6	108.3	136.8	139.3	166.0	129.4	10000.0
May.....	140.4	197.3	108.2	137.2	139.5	166.5	129.4	11200.0
June.....	141.0	198.6	108.4	137.6	141.2	166.3	129.8	12700.0
July.....	140.4	198.3	109.2	138.5	141.5	167.2	130.9	14500.0
August.....	140.4	198.6	109.2	138.9	140.5	165.3	131.1	16400.0
September.....	140.2	197.3	108.6	140.0	141.0	166.1	131.3	17900.0
October.....	141.3	197.5	108.5	140.9	140.3	165.6	132.1	18900.0
November.....	143.8	197.2	108.6	141.6	139.6	165.8	132.3	20800.0
December.....	144.4	198.1	108.8	141.8	139.6	166.6	132.5	22800.0
1944: January.....	144.5	199.4	108.9	141.8	139.9	167.2	132.5	24200.0
February.....	144.6	200.9	108.8	142.0	139.3	167.8	133.8	27300.0
March.....	143.8	200.3	109.4	142.5	139.4	168.1	134.5	33700.0
April.....	143.7	202.7	109.8	142.3	140.4	168.7	134.9	37700.0
May.....	144.4	204.5	110.0	141.8	140.5	169.3	135.2	42500.0
June.....	144.4	206.7	110.0	141.8	141.5	169.3	136.4	46800.0
July.....	144.5	207.2	111.0	141.8	141.8	170.3	(⁶)	49300.0
August.....	143.7	208.3	111.0	141.5	141.6	170.7	(⁶)	49400.0
September.....	143.8	207.9	110.0	141.5	140.7	170.3	(⁶)	52600.0
October.....	143.8	207.6	110.0	141.6	140.4	169.9	(⁶)	55700.0
November.....	145.2	208.5	111.0	141.6	140.5	170.1	(⁶)	58400.0
December.....	145.5	209.8	(⁶)	141.8	140.5	170.4	(⁶)	64800.0
1945: January.....	144.9	210.5	(⁶)	142.2	140.2	170.4	(⁶)	76200.0
February.....	145.8	211.1	(⁶)	142.3	141.0	170.4	(⁶)	96300.0
March.....	145.5	211.4	(⁶)	142.5	141.5	171.0	(⁶)	127500.0
April.....	146.6	212.4	(⁶)	143.0	142.6	170.9	(⁶)	159200.0
May.....	145.8	211.5	(⁶)	142.5	141.6	171.7	(⁶)	(⁶)
June.....	(⁶)	211.4	(⁶)	142.7	142.3	173.4	(⁶)	(⁶)
July.....	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)	174.1	(⁶)	(⁶)

See footnotes at end of table.

⁴ Methods of collecting wholesale prices, and of weighting and computing the indexes differ from country to country, and the indexes are therefore not entirely comparable. The number of commodities covered (where available) indicates roughly the character of each index.

TABLE 2.—*Indexes of Wholesale Prices in Various Countries, August 1939–July, 1945*¹—Continued

[August 1939=100]

Month	Sweden	Switzerland	Denmark	Norway	Mexico	Chile	Palestine	Iran
1939: August.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
December.....	118.9	116.5	128.8	118.2	97.4	108.0	124.6	110.0
1940: August.....	131.5	135.6	153.2	138.2	98.7	112.9	135.2	107.7
January.....	145.9	154.9	173.0	149.9	99.3	113.7	155.2	127.1
December.....	161.3	185.1	180.2	172.8	100.0	155.3	227.6	177.6
1942: January.....	164.0	187.7	190.1	173.0	109.8	159.5	233.7	202.3
February.....	164.9	190.5	191.0	173.4	111.2	160.7	258.9	204.1
March.....	165.8	192.1	191.0	173.8	112.5	164.4	273.2	212.2
April.....	167.6	193.3	191.0	173.9	114.3	168.8	262.3	217.8
May.....	168.5	194.7	191.0	174.3	116.6	171.9	248.4	232.7
June.....	169.4	194.9	191.9	175.1	114.9	176.7	246.9	240.4
July.....	173.9	197.5	191.9	175.2	117.0	185.1	254.5	238.9
August.....	173.0	196.7	192.8	175.7	114.0	188.6	275.1	240.2
September.....	173.0	197.1	192.8	175.8	114.7	188.9	286.6	247.6
October.....	173.9	197.3	192.8	176.8	115.2	189.0	298.4	275.8
November.....	175.7	198.8	192.8	(²)	118.0	188.4	303.1	343.9
December.....	175.7	(²)	193.7	(²)	120.3	191.4	304.6	370.7
1943: January.....	176.6	200.3	192.8	176.9	121.4	193.2	306.1	414.3
February.....	177.5	201.7	192.8	177.1	128.7	194.0	316.3	460.8
March.....	177.5	202.1	192.8	177.3	130.0	195.4	319.4	467.3
April.....	177.5	202.7	192.8	177.4	133.8	195.5	327.0	495.5
May.....	177.5	202.9	192.8	178.0	140.7	197.2	328.3	429.7
June.....	177.5	203.1	192.8	178.0	143.7	198.6	338.1	422.3
July.....	176.6	202.7	192.8	178.3	145.0	199.0	338.5	438.0
August.....	175.7	202.5	192.8	178.0	146.0	196.0	339.4	448.4
September.....	175.7	204.1	193.7	177.8	148.6	197.1	329.6	483.6
October.....	175.7	204.9	193.7	177.8	149.2	195.9	334.6	500.0
November.....	175.7	204.8	193.7	178.2	152.7	195.9	340.0	486.5
December.....	175.7	204.7	193.7	178.4	155.5	194.6	342.7	497.0
1944: January.....	175.7	205.2	193.7	178.4	154.2	191.8	341.6	499.3
February.....	175.7	206.0	194.6	178.5	157.4	193.1	337.8	494.8
March.....	175.7	207.3	194.6	178.5	163.7	193.1	342.9	494.0
April.....	175.7	207.6	194.6	178.6	174.5	194.2	350.1	533.6
May.....	177.5	207.9	194.6	179.1	180.2	194.6	338.1	528.4
June.....	177.5	207.9	195.5	180.0	181.6	199.0	333.4	513.5
July.....	178.4	208.4	195.5	180.1	181.7	204.5	338.0	516.4
August.....	177.5	208.0	195.5	180.3	181.3	209.1	355.9	535.1
September.....	176.6	207.3	196.4	180.0	181.2	210.8	358.7	506.7
October.....	175.7	207.2	196.4	180.1	183.0	211.6	362.7	(³)
November.....	175.7	206.7	197.3	180.1	186.1	214.9	366.7	(³)
December.....	175.7	206.0	197.3	180.4	184.3	212.5	353.9	(³)
1945: January.....	175.7	205.6	197.3	180.5	180.6	209.1	355.2	(³)
February.....	175.7	205.6	197.3	180.5	178.6	219.2	(³)	(³)
March.....	176.6	205.6	198.2	180.6	183.0	210.9	(³)	(³)
April.....	176.6	205.9	197.3	181.0	180.5	211.8	(³)	(³)
May.....	176.6	206.0	197.3	181.1	187.9	212.7	(³)	(³)
June.....	177.5	206.3	191.9	181.5	187.6	(³)	(³)	(³)
July.....	(³)	(³)	191.0	180.7	193.3	(³)	(³)	(³)

¹ These indexes are based on prices paid for goods sold in primary markets, weighted in accordance with their relative importance in the countries concerned. The number and kind of items covered, the method of collecting prices, and the method of computing the indexes differ from country to country.

² The series given represents a combination of indexes with different weighting, prepared in different periods of time for overlapping dates.

³ July 1937–June 1937 prices=100.

⁴ August 1941.

⁵ Not available.

a relatively small part of the commodity coverage in the wholesale-price indexes. The wholesale-price index for New Zealand shows an increase of almost 46 percent over 1939, as compared with an increase of 14.1 percent in the retail-price index. In the United Kingdom between August 1939 and June 1945, the cost-of-living index rose 31.6 percent, but the wholesale-price index advanced 73.4 percent. In Iran the wholesale-price index shows that in September

1944 prices in primary markets were five times those prevailing in 1939, whereas retail prices to the average worker were almost eight times what they paid in 1939. The difference may in part have been due to the presence in the country of large numbers of members of the armed forces of the United States, the United Kingdom, and the Soviet Union, who had greatly increased the demand for consumers' goods.

INDEXES OF FOOD AND CLOTHING PRICES

In the majority of the countries for which price indexes are available, the indexes of retail food prices have risen more than indexes of total living costs. In part, this is due to the fact that in most countries rents have been controlled at or near 1939 levels, and this has kept the cost-of-living indexes below the level of all other group indexes. In Chungking, China, to take the extreme case, the Nankai Institute cost-of-living index in April 1945 stood at 127500 as compared with 100 in July 1936-June 1937. Excluding rent, it stood at 145700 and excluding rent and rice, at 160000. In countries where any consumers' goods have been subsidized, the largest subsidies have been applied to basic food materials, wheat flour, milk, meat, in some countries vegetables, and (in countries largely dependent on that cereal) rice. In some countries where imported foods are important, the government has taken over the responsibility for food imports, and has resold such imports to distributors at subsidized prices. In the case of locally produced foods, subsidies have sometimes been given in the form of direct incentive payments to farmers and have sometimes been introduced at the processors' level. In Canada, as in the United States, although food prices have been subsidized to some extent, they have risen more than the average for all retail prices to moderate-income city consumers. The indexes for Switzerland, Chile, Bolivia, Iran, and Japan also show food prices in recent months higher than the cost-of-living index.

Increases in prices of selected foods in 7 countries where conditions vary widely are shown in table 3. In Australia, Canada, and the United Kingdom, increases have not been extreme. In Australia, incentive payments for locally grown vegetables have gone so far that prices for potatoes and onions were lower in 1944 than in 1939. In Switzerland, which is normally a large importer of food, price increases have been larger, but they have not approached those in southern Europe where the disorganization of food markets has been extreme. Increases in food prices in Greece have been higher than in any other country for which there are data on the prices of individual foods. (Such figures are not available for China.) Shortages in Greece during the German occupation and in the first months after liberation were so great that the death rate reached very high levels. The distribution of available food supplies was complicated by the large amount of currency in circulation as well as by the unsettled conditions which followed the withdrawal of German forces. An announcement in June 1945 by the Governor of the Bank of Greece, who is now Deputy Prime Minister and Minister of Supply, stated that the Government had taken over control of all supplies of consumers' goods and of the currency. The value of the drachma was set at 500 drachmas to the dollar, as compared with about 125 drachmas to the dollar before the war. The announcement stated that part of

Iran

100.0
110.0
107.7
127.1
177.6

202.3
204.1
212.2
217.8
232.7
240.4
238.9
240.2
247.6
275.8
343.9
370.7

414.3
460.8
467.3
495.5
429.7
422.3
438.0
448.4
483.6
500.0
486.5
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the large increase in food prices which had occurred in May was due to hoarding and speculation, and that prices for foods imported from abroad had been reduced to levels prevailing in the last week of April. It went on to say—

We will also make efforts to reduce the prices of products locally produced by controlling production costs and transportation expenses. Such a control will at first be applied on commodities of prime necessity, and gradually extended to all products produced locally. The following are considered articles of prime necessity: Olive oil, soap, vegetables, currants, cheese, meat, and salt.

The ships carrying the Allied assistance are already arriving. The supplies will be distributed immediately, and will permit the public to cover satisfactorily the more urgent of its needs. Do not turn to the open market for your supplies, save only when this cannot be postponed.

TABLE 3.—*Wartime Changes in Prices of Selected Foods in Seven Foreign Countries*

Item	Australia (Melbourne)	Canada (64 cities)	United Kingdom (over 500 cities and villages)	Switzerland (34 cities)	Belgium ¹	Italy (Rome) ²	Greece (Athens) ³
	Aug. 1939- Dec. 1944	Aug. 1939- May 1945	Sept. 1939- June 1945	July 1939- Feb. 1945	April 1940- June 1945	Sept. 1942- Jan. 1945	Average 1939- May 1945
Percent of change in period specified							
Bread.....	+3	+6	+9	+24	+149	+92	+1,596
Potatoes.....	-54	+44	+46	(⁵)	+370	+988	+4,174
Rice.....	+4	(⁵)	(⁵)	+165	-----	+843	+5,391
Milk.....	+1	-5	+32	+21	+455	+669	+1,567
Butter.....	+5	+45	+31	+58	-----	(⁵)	+2,184
Onions.....	-39	+6	(⁵)	(⁵)	-----	(⁵)	+242
Beef.....	+49	+68	+27	+75	+560	+1267	+1,414
Pork.....	+33	+42	+50	+104	+561	(⁵)	+1,100
Sugar.....	0	+32	+32	+114	-----	+113	+7,221
Coffee.....	(⁵)	+31	(⁵)	+58	-----	(⁵)	+2,926
Tea.....	+1	+32	+21	+115	-----	(⁵)	+638

¹ Number of cities not specified. Official and black-market prices combined by estimated actual consumption.

² Official prices.

³ Data are from consular report from the U. S. Embassy in Athens, prepared by Enepekides, June 5, 1945.

⁴ Pasta (spaghetti, macaroni, etc.) increased 125 percent during this period.

⁵ Price data not available.

⁶ Increase from September 1942 to July 1944.

⁷ The figure is for stewing beef; price of sirloin steak rose 54 percent.

⁸ The figure is for thin flank; price of ribs rose 11 percent.

⁹ The figure is for bacon.

¹⁰ Estimated on the assumption that the relation between pork and beef prices was the same in May as in January 1945.

Indexes of clothing prices for all the countries for which data have been obtained have risen higher (and in some cases much higher) than indexes for food prices. The necessities of war have forced the peoples of most countries to go without clothing replacements to a very large extent since 1939. The only country with a marked decline in clothing costs from the peak wartime level was the United Kingdom where the index of retail clothing prices almost doubled from August 1939 to March 1942, remained unchanged for 6 months, and then declined to and remained stable at a point about two-thirds above the 1939 level. The decline was brought about by the Government's "utility clothing" program. This program provided durable low-cost clothing in standardized models, through allocations of raw materials to producers making goods meeting the Government's regulations on this subject. At last reports, 85 percent of the clothing being produced

in the United Kingdom met the specifications set for the "utility" models. In Sweden there was a small decline in clothing prices in November 1942 when prices of certain essentials were reduced by Government order, and further small decreases were accomplished in the next 2 years, so that the level of the Swedish index of retail clothing prices stood at 163 in March 1945 as compared with 171 in October 1942, a decline of about 4 percent.⁵

TABLE 4.—*Indexes of Retail Prices of Food and Clothing Since August 1939, Compared with Cost-of-Living Indexes, in Selected Foreign Countries*

[August 1939=100]

Country	Month and year	Indexes, in months specified, of—		
		Food	Clothing	Cost of living
New Zealand.....	December 1942 ¹	108	(²)	113
Germany.....	April 1944.....	111	137	111
Canada.....	May 1945.....	133	122	118
Australia.....	March 1945.....	113	(³)	123
United Kingdom.....	July 1945.....	129	168	134
Japan.....	February 1944.....	145	156	143
Sweden.....	June 1945.....	138	163	143
Switzerland.....	February 1945.....	165	209	153
Denmark.....	April 1945.....	157	189	159
Norway.....	December 1944.....	153	195	152
Mexico.....	May 1945.....	196	251	207
Chile.....	April 1945.....	233	294	227
Bolivia.....	April 1945.....	287	302	274
Iran.....	September 1944.....	828	984	777
Argentina.....	March 1945.....	141	127	132
Brazil.....	November 1944.....	187	217	167
China.....	April 1945 ⁴	141, 100	182, 100	127, 500
Belgium.....	June 1945 ⁵	519		

¹ Based on an index of retail prices. When the new wartime index of living costs was initiated in New Zealand, it was published without giving the component group indexes.

² In 1939 the New Zealand index combined clothing and furniture prices in 1 group index.

³ In 1939 clothing was combined with miscellaneous items in the Australian index.

⁴ The index for Brazil (Rio de Janeiro) is based on goods purchased by moderate-income families. The index of food prices to wage earners for this city for November 1944 is 226, when August 1939 is taken as 100.

⁵ Index is based on July 1936–June 1937=100.

⁶ Index is based on April 1940=100. This is the only price index at present available for Belgium.

The November issue of the Monthly Labor Review will contain an account of price control and rationing in foreign countries during the war period.

⁷ A forthcoming bulletin will contain detailed statistical information, similar to that given herein, in tables 1 and 2, on indexes of food and clothing.

Work Injuries in the United States During 1944¹

Summary

MORE than 2¼ million workers were disabled during 1944 because of work injuries which occurred during that year, according to estimates of the Bureau of Labor Statistics. The total of 2,230,400 injuries, however, is 7.7 percent lower than the 1943 total, and marks the reversal of the continuous upward trend in the injury total since 1938 when work injuries numbered 1,375,600. During 1941, the last pre-war year, the injury total was 2,180,200. This figure increased to 2,267,700 in 1942, and reached a peak of 2,414,000 during 1943.

The 7.7-percent decrease in work injuries more than offset a 3-percent decrease in employment from the 1943 level and thus reflects an actual improvement in the work-injury situation.

During a year marked with acute manpower shortages and heavy demands by the armed services, industrial injuries are estimated to have caused an actual time loss of 43,614,400 employee-days. This was equivalent to full annual employment for about 145,000 workers. If standard economic time charges are added for deaths and permanent impairments in order to reflect the ultimate losses occasioned by these injuries, the total time loss caused by disabling injuries mounts to 222,944,000 employee-days, or full-time annual employment for 743,000 persons.

Fatalities decreased more sharply than the other types of disabilities. The estimated total of 15,900 is nearly 14 percent lower than the estimate of 18,400 for 1943. Most of the decrease is attributable to the sharp curtailment of construction during 1944. Permanent total disabilities remained at the 1943 figure of 1,700. Permanent partial impairments, however, are estimated to have dropped from the 1943 level of 108,000 to 94,000. Similarly, temporary total disabilities are estimated to have dropped from 2,285,900 in 1943 to 2,118,400 in 1944, a decrease of about 7 percent.

The injury-frequency rate in manufacturing, as a group, showed a decided improvement. The rate was 18.4 disabling injuries per million employee-hours worked, a decrease of 8 percent from the 1943 level of 20.0. The distribution of injuries by extent of disability remained about the same; 0.5 percent resulted in death or permanent total disability, 4.4 percent in permanent partial impairments, and 95.1 percent in temporary total disabilities. No marked changes occurred in the average time charges—952 days per permanent partial impairment and 17 days per temporary total disability. By far the largest group of permanent impairments (76 percent of all disabilities) affected hands or fingers, 7 percent affected feet or toes, 5 percent the eyes, and 3 percent legs and arms.

Estimates of Disabling Work Injuries

The more comprehensive data available at this time for estimating purposes indicate no need for revision in the preliminary estimates made some months ago.² In the one group in which later data were

¹ Prepared in the Bureau's Industrial Hazards Division by Max D. Kossoris. The detailed tables on which this discussion is based will be included in a forthcoming bulletin.

² See *Industrial Injuries in 1944: Preliminary Estimates*, in *Monthly Labor Review*, March 1945.

very much more comprehensive than the data used for the preliminary estimates, the revised injury total equaled the earlier estimate exactly.

The estimate of 2,230,400 work injuries in all industrial activities of the United States is nearly 8 percent below the estimate of 2,414,000 for 1943. Fatalities are estimated to have decreased to 15,900, which is nearly 14 percent less than the estimate of 18,400 for 1943. More than half of this decrease is traceable to the sharp curtailment of construction activities during 1944. There was practically no heavy or highway construction during 1944, and little building construction. The total of all disabling injuries in this industry is estimated to have dropped from 260,100 in 1943 to 99,600 in 1944.

Estimated Number of Disabling Injuries During 1944, by Industry Groups

[Difference between number of total injuries and injuries to employees represents injuries to self-employed workers]

Industry group	All disabilities		Fatalities		Permanent total disabilities		Permanent partial disabilities		Temporary total disabilities	
	Total	To employees	Total	To employees	Total	To employees	Total	To employees	Total	To employees
All groups.....	2,230,400	1,802,100	15,900	11,200	1,700	1,400	94,400	76,000	2,118,400	1,713,500
Agriculture ¹	311,900	75,400	4,800	1,200	400	100	15,600	3,700	291,100	70,400
Mining and quarrying ²	92,100	87,300	1,700	1,600	200	200	4,000	3,800	86,200	81,700
Construction ³	99,600	60,000	1,100	700	100	100	3,600	2,200	94,800	57,000
Manufacturing ⁴	786,900	773,500	2,900	2,800	300	300	35,400	34,800	748,300	735,600
Public utilities.....	19,300	19,300	400	400	(⁵)	(⁵)	500	500	18,400	18,400
Trade ³	273,800	219,000	700	600	100	100	6,000	5,000	267,000	213,300
Railroads ⁶	92,400	92,400	1,200	1,200	300	300	6,400	6,400	84,500	84,500
Miscellaneous transportation ³	135,100	116,000	900	700	100	100	4,100	3,500	130,000	111,700
Services, government, and miscellaneous industries ³	419,300	359,200	2,200	2,000	200	200	18,800	16,100	398,100	340,900

¹ Based on fragmentary data.

² Based largely on Bureau of Mines data.

³ Based on small sample studies.

⁴ Based on comprehensive survey.

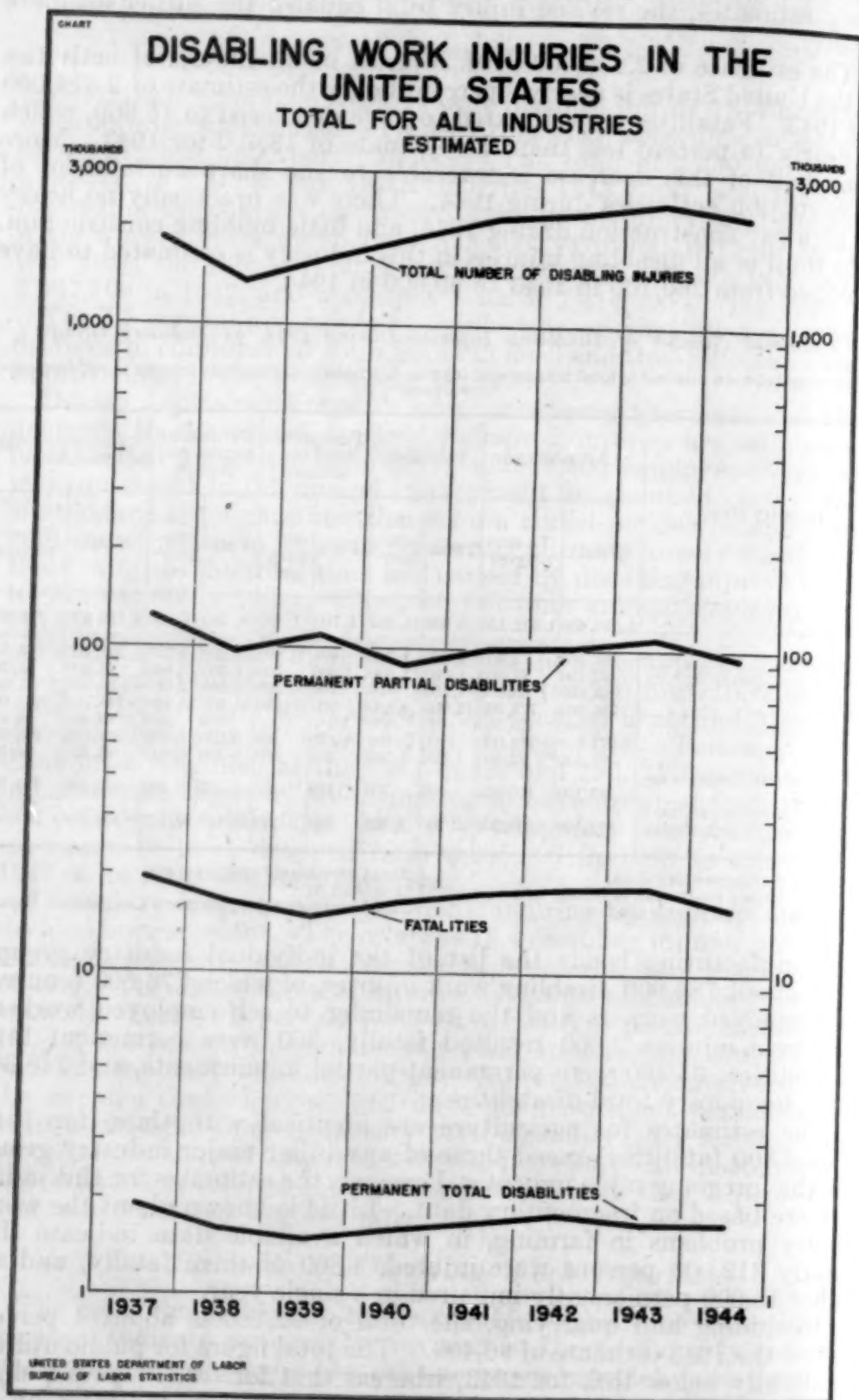
⁵ Less than 50.

⁶ Based on Interstate Commerce Commission data.

Manufacturing heads the list of the individual industry groups, with about 786,900 disabling work injuries, of which 773,500 occurred to employed workers and the remainder to self-employed workers. Of these injuries 2,900 resulted fatally, 300 were permanent total disabilities, 35,400 were permanent partial impairments, and 748,300 were temporary total disabilities.

The estimates for agriculture are identical with those for 1943. The 4,800 fatalities exceed those of any other major industry group. As the foregoing table indicates, however, the estimates for this industry are based on fragmentary data. Little is known about the work-injury problems in farming, in which available data indicate that nearly 312,000 persons were injured, 4,800 of them fatally, and another 16,000 permanently impaired in a single year.

In mining and quarrying, the total of 92,100 is about 4 percent below the 1943 estimate of 96,400. The total figure for public utilities is slightly below that for 1943, whereas that for trade shows a slight increase. The injury total for railroads, however, indicates an increase from 85,400 disabling injuries in 1943 to 92,400 in 1944, a



rise of 8 percent. On the other hand, the injury level for miscellaneous transportation, i. e., transportation other than that covered by railroads, decreased from 146,000 in 1943 to 135,100 in 1944.

In the group with the second largest injury total—services, government, and miscellaneous activities not included in any of the other industry groups—the 1944 injury total remained at about the 1943 level. The 1944 injuries totaled 419,300, of which 2,200 were fatalities, 19,000 permanent impairments (200 of these being permanent total disabilities), and 398,100 temporary disabilities.

Injury-Frequency Rates

The injury-frequency rates shown in this survey are for all establishments from which reports were received for the year 1944. The same procedure was followed in 1943. The rates are considered to be fairly representative of each industry's experience during each year. The plants covered, however, are not identical in successive years. As the number of plants in an industry increases, the size of the reporting group is also increased, in order to maintain a sample group containing about 40 percent or more of the total number of employees in each industry.

A comparison of 1944 rates with those for 1943, therefore, reflects total changes in the injury experience in any one industry.

In 81 of the industries surveyed, rates for 1944 are lower than those for 1943. In 69 industries they are higher, and in 5 there were either no changes at all or changes of less than 0.1 percent.

The 1944 industry survey also includes five industries or services not formerly shown: Synthetic rubber, distilleries, restaurants, and municipal fire and police departments.

MANUFACTURING

Occupying its customary first place in the list of industries with high frequency rates is logging, with a rate of 85.4. The sawmill industry is in its customary second place, with a rate of 55.6. Similarly high is the wooden-container rate of 47.1.

In the food-industries group, the 1944 rate of 35.9 for slaughtering and meat packing was considerably lower than that of 47.6 for 1943. The 1944 rate, however, reflects the experience of a very much larger group, as a result of a special accident-prevention drive conducted during 1944. A group of 202 identical establishments showed practically no change in the frequency rate.

Breweries showed a sharp rise during 1944, with a rate of 46.2 as against a rate of 35.3 in 1943. Deterioration of equipment and packaging materials appear to be largely responsible for this increase.

No marked changes occurred in the industries in the iron and steel products group. In the iron and steel industry itself, the 1944 rate was 9.9, compared with a rate of 10.0 in 1943. Similarly, a small decrease occurred in the much higher rate for iron and steel foundries, which dropped from 43.4 in 1943 to 43.0 in 1944. The rate for plate fabrication and boiler-shop products increased fractionally, from 44.3 to 44.7.

A marked reduction was recorded for the transportation-equipment group, in which the rate dropped from 20.2 to 16.3. Most of this rate

decrease was attributable to the better injury record in the shipbuilding industry and was due largely to the accident-prevention activities of the Maritime Commission. The reduction in shipbuilding was from 31.5 to 23.6. In 1942, the rate was 33.1.

Repeating the demonstration that the most hazardous activities can be made safe by proper precautions, the explosives industry duplicated its 1943 frequency rate of 5.3.

NONMANUFACTURING

The data for 2,132 construction firms included in the 1944 survey yielded a frequency rate of 27.7 for the entire group. A slightly larger number of firms had a rate of 26.1 in 1943.

By far the highest frequency rate of any of the nonmanufacturing industries—even exceeding that for logging—was that for stevedoring, 88.1, a slight reduction from the 1943 rate of 91.3. As in 1943, there is reason to believe that even this high rate is an understatement of the actual experience of the industry.

Trucking and hauling, with a rate of 38.3, had the second highest frequency rate in 1944, but showed a slight improvement from the rate of 41.4 for the preceding year. A rather sharp rate increase was experienced in the warehousing and storage industry, with a rise from 32.2 in 1943 to 37.5 in 1944.

Type and Severity of Injuries

The severity of injuries is not indicated adequately by the severity rate, which shows the average days lost or charged per 1,000 employee-hours worked. Because time charges are geared to exposure hours, industries with large exposure hours may have lower severity rates, even though they experienced a high proportion of very serious injuries, than industries with smaller exposure hours and proportionately less severe injuries. The severity of injuries is reflected more adequately by a percentage distribution of injuries by extent of disability and the measure of the average time charge for each of these.

The explosives industry, for example, had a 1944 severity rate of 1.6, whereas that for the fertilizer industry was 4.7, and for soap and glycerin 2.6. However, in the explosives industry 2.7 percent of the injuries resulted in death or permanent total disability as against 1.1 percent for the fertilizer and 0.6 percent for the soap and glycerin industry. Similarly, 6.2 percent of the explosives industry's injuries resulted in permanent impairments, as against percentages of 3.3 and 5.3 for the other two industries, respectively. The severity rate does not reflect the severity of injuries, but rather an average time charge per 1,000 hours of exposure.

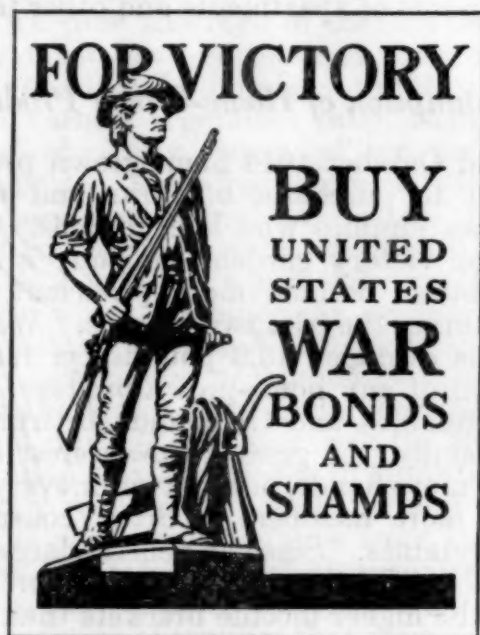
For the entire manufacturing group, deaths and permanent total disabilities (the latter accounting for about 10 percent of the combined figures) were 0.5 percent of all reported injuries. For individual industries, however, this percentage varied considerably. In manufacturing, it was highest in the explosives industry—2.7 percent. In the nonmanufacturing group, it was highest for highway construction—2.3 percent.

Permanent partial impairments showed still greater variations for industry comparisons. Industries with 7 percent or more of such

injuries included wood furniture, 7.0 percent and an average time charge per injury of 793 days; heavy ammunition, 7.4 percent and an average charge of 1,059 days; general machine shops, 10.0 percent and 925 days; radios and phonographs, 10.9 percent and 896 days; engines and turbines, 11.2 percent but only 573 days; and, highest in the list, carpets and rugs, with 12.0 percent and 985 days per injury.

Among industries with lower percentages of permanent impairments but with high average time charges per injury were fertilizers, 1,715 days; flour, feed, and grain mills, 1,641 days; sugar refining, 1,904 days; dairy products, 2,133 days; logging, 1,794 days; men's clothing, 1,840 days (but only 0.9 percent of permanent impairments); highway construction, 1,695 days; stevedoring, 1,810 days; streetcar transportation, 1,783 days (but only 0.8 percent of such injuries); gas utilities, 1,966 days; and laundries, 1,771 days.

On the average, temporary total injuries averaged 17 days per disability in manufacturing industries. Some individual industries, however, had much higher averages: Iron and steel, 41 days; explosives industry, 29 days; and production of military tanks, 59 days. Among nonmanufacturing industries, the amusement industry had the highest average, 25 days, followed closely by stevedoring, with 23 days per injury.



City Gardens in Wartime¹

Summary

IN ONE WEEK during the fall of 1944 city families consumed over 100 million pounds of fruits and vegetables produced in their own gardens. The home-produced fruits and vegetables amounted to 15 percent of all fruits and vegetables used² by urban households. Nearly 1 out of 3 city families produced food for their own consumption, amounting on the average, to 13 pounds in the week. It thus appears that the "victory gardens" in urban communities made a substantial contribution to the national food supply during the war period.

The victory garden was recognized early in the war period as an important potential contributor to the necessary increase in national food supply. Along with the formation of local Red Cross chapters and civilian defense groups, municipal governments and civic organizations organized victory garden clubs as a medium for stimulating and assisting city families to grow food in their gardens. Through these clubs gardening was encouraged by arranging for the breaking of the ground on a cooperative basis with heavy equipment. Vacant lots, parks, and undeveloped areas were either donated or rented at a nominal fee to occupants of apartments and other families not having back yards.

Consumption of Home-Grown Produce

In September and October 1944 home-grown produce was an important supplement to purchases of fruits and vegetables by the large group of urban families who had gardens.³ This represented the third season for victory gardens in many areas. The victory gardener had doubtless become more proficient, on the basis of experience gained during the past two seasons. Weekly consumption of home-grown foods averaged 13.3 pounds per family for those reporting consumption of any home-grown produce, or 2.8 pounds per person for fresh vegetables, and 1.1 pounds for fruit (table 1).

The larger the family, the greater the interest in gardens. With more incentive and more hands, nearly two in every five families that contained four or more members reported consumption of home-grown fruit and vegetables. Since, in general, large families had more income than small families, gardening was more frequently found among families in the higher income brackets than among those with the lowest incomes. Home-grown produce was used by 24 percent of

¹ Prepared in the Bureau's Prices and Cost of Living Branch by Minnie B. McIntosh and Frances C. Fox.

² Purchases during the week, plus home-grown produce consumed. It is generally assumed (unless there is evidence to the contrary) that, in cities, purchases of food during a week represent consumption of purchased food, when averaged over a large group of families.

³ The data presented in this article are from the first part of the Survey of Prices Paid by Consumers, conducted by this Bureau in September and October 1944. They were obtained at the request of the War Food Administration, and the initial tabulations of home-grown and home-processed foods were prepared by that agency. For description of the sample and definitions used in the survey, see Bureau of Labor Statistics Bulletin No. 838, which presents data from the same study on food purchases in the fall of 1944, compared with food purchases in the spring of 1942. The reports on food pertain to the 7-day period immediately preceding the interview, or the previous calendar week. The proportion that covered a week in each month in 1944 was: September, 69 percent; October, 30 percent; and November, 1 percent. Food raised by friends and relatives and given to the family, as well as that raised or gathered by the family, was considered home-grown. There is every reason to assume, however, that in most cases families reporting consumption of home-grown food had raised the food themselves. Families reporting consumption of home-grown fruits and vegetables are therefore referred to as having gardens.

the small families with incomes below \$1,000, and by at least 30 percent in every income class above \$1,000. The relatively smaller number of gardens in the highest income group, \$4,000 and over, as compared with the \$3,000-\$4,000 group, is probably an indication of the concentration of the high-income families in the largest and most densely populated cities.

Nearly half of the families in the Western regions reported the consumption of home-grown fruits and vegetables during this period. Gardening was least frequent among the urban families in the South. Information from earlier studies indicates that gardening and the home processing of food are more customary in the Western cities than elsewhere. Western families have more opportunity to grow a few vegetables and some fruit because a larger proportion of them live in single-family structures. Since most Southern city families also have single family homes, the relatively low number with gardening produce at the period must be attributed to the season during which the survey was made, the influence of the wartime situation, and differences in customs.

Tomatoes were by far the most common of the home-grown vegetables consumed during this period, forming 37 percent of the total (table 1). For every group studied, tomatoes were most important, probably because they do not require so much garden space as other vegetables. The wartime shortage of commercially packed tomato products certainly must have encouraged their cultivation in 1944, for home canning as well as for immediate table use.

The amounts of various vegetables eaten from the garden during the survey period obviously depended on the family's location. Tomatoes were reported least frequently in the South, where the tomato-growing season was almost over when the survey was conducted. Potatoes and cabbage were reported in largest quantity in North Central cities, in many of which the growing season starts late. Home-grown greens, which are especially popular in the South, were much more common there than in Northern cities.

For each of the most popular vegetables and fruits, the more members in the family the larger the consumption per family. Only in the case of corn and cabbage, however, was the increase so great that per capita consumption also increased with family size. Consumption of home-grown corn was not reported by any one-person family, probably because its cultivation requires more space than the single person wishes to use. Potatoes, which also require considerable space, were relatively less important for smaller than for larger families.

Although the proportion of families that ate home-grown vegetables or fruits was greater the larger the family income, the per capita consumption of home-grown vegetables as a group showed no consistent relation to family income. The amounts reported per person were about the same at all income levels in the case of tomatoes. There was an increase in per capita consumption with a decline in income in the case of both greens and cabbage, perhaps because they are particularly popular with low-income families. By contrast, consumption of fresh home-grown fruits increased with income, probably because many of the fruits require more time, more growing space, and more cultivation than most vegetables and accordingly are rather costly for the small gardener.

TABLE 1.—Consumption of Home-Grown ¹ Fruits and Vegetables by City Housekeeping Families, ² 1 Week in September-October 1944

Type of family, number of persons in family, income, ³ and region	Per- cent- age re- port- ing con- sump- tion of home- grown fruits and/or vege- tables	Aver- age fam- ily size	Average quantity per family per week (in pounds)										
			Total	Mel- ons	Other fruit	Vegetables							
						Total	To- ma- toes	Cab- bage	Leafy greens	Car- rots	Corn	Pota- toes ⁴	Other
<i>Size of family</i>													
All families with gardens.....	100.0	3.31	13.31	0.73	3.18	9.40	3.52	0.93	0.24	0.59	0.95	0.86	2.31
1 person.....	100.0	1.00	5.26	.40	.90	3.96	2.41	.21	.17	.38	0	.27	.52
2 and 3 persons.....	100.0	2.51	10.67	.46	2.65	7.56	2.83	.66	.19	.49	.61	.73	2.05
4 or more per- sons.....	100.0	4.73	17.90	1.14	4.22	12.63	4.60	1.38	.30	.77	1.53	1.12	2.93
All housekeeping families.....	32.9	3.17	4.32	.24	1.03	3.05	1.14	.30	.08	.19	.31	.28	.75
1 person.....	21.0	1.00	1.07	.08	.18	.81	.49	.04	.04	.08	0	.05	.11
2 and 3 persons.....	32.0	2.47	3.36	.14	.84	2.38	.89	.21	.06	.15	.19	.23	.65
4 or more per- sons.....	37.5	4.86	6.64	.42	1.56	4.66	1.70	.51	.11	.28	.57	.41	1.08
<i>Annual income</i>													
All families with gardens.....	100.0	3.31	13.31	.73	3.18	9.40	3.52	.93	.24	.59	.95	.86	2.31
Under \$1,000.....	100.0	2.10	10.11	0	1.97	8.14	2.55	.97	.13	.65	1.08	.88	1.88
\$1,000-\$2,000.....	100.0	2.53	9.47	.27	2.17	7.03	2.56	1.04	.25	.48	.33	.54	1.83
\$2,000-\$3,000.....	100.0	3.50	13.73	1.17	2.89	9.67	3.38	1.14	.30	.36	1.33	.62	2.54
\$3,000-\$4,000.....	100.0	3.56	15.97	.71	4.04	11.22	4.34	.77	.23	1.00	.76	1.44	2.68
\$4,000 and over..	100.0	4.00	15.04	.85	4.28	9.91	4.00	.73	.19	.58	1.24	.85	2.32
All housekeeping families.....	32.9	3.17	4.32	.24	1.03	3.05	1.14	.30	.08	.19	.31	.28	.75
Under \$1,000.....	23.7	2.10	2.33	0	.45	1.88	.59	.22	.03	.15	.25	.20	.44
\$1,000-\$2,000.....	30.1	2.52	2.80	.08	.64	2.08	.76	.31	.07	.14	.10	.16	.54
\$2,000-\$3,000.....	32.3	3.24	4.33	.37	.91	3.05	1.07	.36	.09	.12	.42	.19	.80
\$3,000-\$4,000.....	43.8	3.56	6.96	.31	1.76	4.89	1.89	.33	.10	.44	.33	.63	1.17
\$4,000 and over..	33.9	3.93	5.02	.28	1.43	3.31	1.34	.25	.06	.19	.41	.28	.78
<i>Region</i>													
All families with gardens.....	100.0	3.31	13.31	.73	3.18	9.40	3.52	.93	.24	.59	.95	.86	2.31
Northeast.....	100.0	3.43	13.07	.22	3.77	9.08	3.63	.85	.23	.79	.57	.70	2.31
South.....	100.0	3.36	11.46	1.00	3.52	6.94	2.38	.06	.58	.11	.76	.43	2.62
North Central.....	100.0	3.40	14.95	.75	2.92	11.28	4.26	1.72	.12	.70	.83	1.46	2.19
Mountain and Pacific.....	100.0	2.96	12.09	1.26	2.54	8.29	2.85	.29	.22	.45	1.80	.37	2.31
All housekeeping families.....	32.9	3.17	4.32	.24	1.03	3.05	1.14	.30	.08	.19	.31	.28	.75
Northeast.....	31.6	3.26	4.11	.07	1.18	2.86	1.14	.27	.07	.25	.18	.22	.73
South.....	18.4	3.17	2.09	.18	.64	1.27	.43	.01	.11	.02	.14	.08	.48
North Central.....	39.0	3.21	5.73	.29	1.11	4.33	1.63	.66	.05	.27	.32	.56	.84
Mountain and Pacific.....	47.9	2.91	5.73	.60	1.20	3.93	1.35	.14	.10	.21	.85	.18	1.10

¹ Includes food consumed that was raised by family, raised by friends or relatives and given to the family, or gathered by the family (such as greens, berries, and other wild products.)

² The term "family" is used to include single persons. A family was defined as a group of persons, usually related, who lived together during a designated period, contributing to the family income or receiving a large part of their support from family funds; a single person as an individual who lived independently, apart from relatives. A family occupying a house, flat or apartment with regular cooking facilities was defined as "housekeeping." All data presented in this table are based on reports by housekeeping families.

³ The annual rate of income was based on reports for August 1944. Income was defined to include amounts received by all family members as wage or salary earnings after deductions, entrepreneurial net income or withdrawals and nonearned income from all sources, exclusive of inheritances, large gifts, and lump-sum insurance settlements.

⁴ Includes sweetpotatoes.

Effect of Gardens on Purchases

Families with gardens raised approximately 40 percent of the vegetables they consumed during the week of the Bureau's survey in 1944. The lower the income the higher the proportion of vegetables produced at home—55 percent for families with incomes under \$1,000, decreasing to 37 percent for families with incomes of \$4,000 and over. In every income bracket, families with gardens consumed substantially more vegetables than housekeeping families eating only purchased foods.

As was to be expected, families without gardens purchased many more tomatoes than families with gardens—at least twice as many in most of the income groups. Purchases of other vegetables by families without gardens were also higher in general.

The converse was generally true in the case of fruit purchased. Although purchases of citrus fruits were about equal for both groups, half-bushel and bushel purchases of pears, apples, and peaches were more common among the families with gardens. Because of the size of these purchases and also because many respondents voluntarily stated that the fruit was used for canning, it can safely be assumed that most of these large purchases were not for immediate table use. Evidently their recent experience with the canning of the home-grown garden produce influenced their purchases, since half of the fruit purchased in large quantities was bought by the families with gardens, representing numerically about a third of all housekeeping families. Expense for fruit was not proportionately so high, owing to the lower prices paid for quantity purchases.

The somewhat larger expenditures of families with gardens for food other than fruits and vegetables probably resulted in part from greater purchases of sugar and spices for canning. The comparison of the expenditures of the two groups clearly indicates that the urban families with gardens customarily included more fruits and vegetables in their diets, and grew food for home consumption as a means of reducing their expenditures on food approximately to the level of expenditures of other families.

TABLE 2.—Consumption of Purchased Food by City Housekeeping Families With and Without Gardens, September–October 1944, by Annual Money-Income Rate

Annual money income	Average expense					Average quantity of fruits and vegetables (in pounds)			
	All food	Vegetables and fruits				Total	Toma-toes	Other vege-tables	Fruits
		Total	Toma-toes	Other vege-tables	Fruit				
Families with gardens:									
Under \$1,000	\$7.30	\$0.97	\$0.01	\$0.39	\$0.57	\$6.32	12.25	0.10	6.65
\$1,000–\$2,000	11.03	1.77	.07	.67	1.03	9.26	21.92	.62	8.96
\$2,000–\$3,000	14.53	2.37	.07	.90	1.40	12.16	31.11	.97	13.00
\$3,000–\$4,000	15.43	2.65	.10	.94	1.61	12.79	39.47	1.76	14.44
\$4,000 and over	18.09	3.02	.09	1.20	1.73	15.67	35.63	1.52	15.42
Families without gardens:									
Under \$1,000	7.65	1.35	.08	.58	.69	6.29	15.43	.85	7.58
\$1,000–\$2,000	10.19	1.70	.14	.76	.80	8.49	20.09	1.31	10.64
\$2,000–\$3,000	14.38	2.66	.21	1.04	1.41	11.72	30.85	2.11	13.63
\$3,000–\$4,000	14.86	2.58	.20	1.04	1.34	12.27	26.92	1.76	11.55
\$4,000 and over	18.37	3.19	.29	1.25	1.65	15.19	35.48	3.83	15.36

Home-Grown Produce as a Factor in Total Consumption

The inference that the urban family with a preference for fruits and vegetables undertakes when possible to produce some of the family food supply is confirmed by a comparison with the data from the survey of family food consumption made in the period March through June 1942. As was shown in the report on wartime food purchases,⁴ quantities of fresh vegetables bought were substantially smaller in the fall of 1944 than in the spring of 1942. The combination of home-grown with purchased vegetables for each period reveals that the larger quantity of home-grown vegetables in 1944 tended to equalize total consumption, as shown below:

Annual money income:	Average quantity consumed per family per week (in pounds) ¹ —	
	September and October 1944	March-June 1942
Under \$1,000.....	9. 94	11. 61
\$1,000-\$2,000.....	13. 31	14. 30
\$2,000-\$3,000.....	18. 22	19. 40
\$3,000-\$4,000.....	19. 34	20. 03
\$4,000 and over.....	21. 68	25. 64

¹ Averages are based on all housekeeping families.

Clearly, the victory gardens were effective in relieving the market of a substantial part of the potential demand for fruits and vegetables.

In the case of fruits, as would be expected, purchases were larger in the fall of 1944 than in the spring of 1942.⁴

Although a portion of this fruit was canned for winter use, the larger amounts that were home grown in 1944 plus the increased purchases suggest considerably higher fruit consumption in the more recent period.

Annual money income:	Average quantity consumed per family per week (in pounds) ¹ —	
	September and October 1944	March- June 1942
Under \$1,000.....	7. 12	4. 78
\$1,000-\$2,000.....	10. 12	8. 92
\$2,000-\$3,000.....	17. 05	13. 49
\$3,000-\$4,000.....	19. 45	16. 71
\$4,000 and over.....	18. 88	17. 90

¹ Includes home-grown fruits as well as fruit purchased for current consumption and canning.

Home-Processed Fruits and Vegetables

One-fourth of the city families ate, during a week in the fall of 1944, some home-processed fruits or vegetables that they had raised at some earlier date. Of these families, almost 30 percent reported consumption only of pickles, relishes, jams, or jellies, but no home-canned fruits, vegetables, or juices (table 3).

These figures should not be interpreted as an indication of the total number of families having home-processed foods in the pantry, as it was too early in the fall to expect supplies to be used in any great quantity. The average housewife is loath to open her home-canned food early in the fall, with the winter months ahead when her family will have greater need for it.

⁴ See Monthly Labor Review, June 1945 (p. 1153).

As in the case of home-grown food, the relative number of families reporting consumption of home-processed foods increased with family size. The amounts reported per family were likewise greater the larger the family size, but the increase was insufficient to provide as much per person for large as for small families.

Use of home-processed fruits and vegetables was somewhat more common among high- than low-income families, with consumption reported by less than a sixth of those having incomes below \$1,000 and by more than a fourth of those that received \$2,000 or more. A total of approximately 4 pounds of home-processed fruits, vegetables, pickles, jams, etc., was reported at each income level by families that served such foods during the survey period. Fruits and vegetables were of approximately equal importance, with tomato products comprising over half the total of home-canned vegetables used.

In cities in the West, home-processed foods were served by 36 percent of the families during the survey period. The North Central followed with 26 percent reporting consumption, while in the Northeast and the South only about a fifth of the families ate any home-processed fruits or vegetables. In the Northeast, home-processed vegetables were used in considerably greater quantity than fruits, whereas in the West the reverse was true. Elsewhere, the two were reported in about the same quantity.

The total consumption of processed fruits and vegetables (both purchased and home-processed) was larger in the fall of 1944 than in the spring of 1942, probably because of seasonal differences in the supply of fresh produce. It is difficult, however, to determine the extent to which the reduction in weekly purchases of all such foods except fruit juices was influenced by season, scarcity, rationing, and by supplementation with home processing. Fruit was high in point value during most of the 1944 period studied. By comparison with 1942, consumers increased their purchases of fruit juices, most of which were not on the ration list, and those with incomes of \$1,000 to \$4,000 also used more home-canned fruits and juices than in March-June 1942.

Both tomatoes and tomato juice were rationed, and families used roughly twice as much home-processed tomato products in the fall of 1944 as in the spring of 1942. Since other vegetables were on the ration list for only a short part of the survey period, rationing as such could not have influenced purchases; supplies, nevertheless, were short in some areas. Price could hardly have been a factor in reduced purchases, as canned-goods prices had risen only slightly since 1942.

Although purchases of tomato products, which were rationed in the fall of 1944, were very much lower than in the spring of 1942, home-processed tomato products were not used in much greater quantity. This may be due partly to the fact that fresh tomatoes, from both home gardens and markets, were relatively abundant in the fall. Consumption of other home-processed vegetables increased relatively more between the two dates, but the amounts were so negligible that they made up for very little of the reduction in purchases. Total consumption of fresh and processed vegetables thus averaged several pounds less in 1944 than in 1942.

TABLE 3.—Consumption of Home-Processed Fruits and Vegetables by City Housekeeping Families, 1 Week in September–October 1944¹

Type of family, number of persons in family, income, and region	Percent- age reporting con- sump- tion of home- processed fruits and/or veget- ables	Average family size	Average quantity per family per week (in pounds)						
			Total	Fruits ¹	Vegetables ²			Pickles and relishes	Jams and jellies
					Total	Toma- toes	Other		
<i>Size of family</i>									
All families consuming home-processed fruits and/or vegetables.....	100.0	3.40	4.14	1.38	1.59	0.83	0.76	0.39	0.78
1 person.....	100.0	1.00	1.95	.68	.68	.30	.38	.06	.53
2 and 3 persons.....	100.0	2.49	3.75	1.26	1.54	.84	.70	.30	.65
4 or more persons.....	100.0	4.76	4.87	1.61	1.75	.87	.88	.53	.98
All housekeeping families.....	24.3	3.17	1.01	.34	.39	.20	.19	.09	.19
1 person.....	12.3	1.00	.24	.08	.09	.04	.05	.01	.06
2 and 3 persons.....	22.9	2.47	.86	.29	.35	.19	.16	.07	.15
4 or more persons.....	29.7	4.86	1.45	.48	.52	.26	.26	.16	.29
<i>Annual income</i>									
All families consuming home-processed fruits and/or vegetables.....	100.0	3.40	4.14	1.38	1.59	.83	.76	.39	.78
Under \$1,000.....	100.0	2.52	3.66	1.31	1.68	.80	.88	.29	.38
\$1,000-\$2,000.....	100.0	2.64	4.02	1.30	1.38	.56	.82	.36	.98
\$2,000-\$3,000.....	100.0	3.47	4.43	1.60	1.73	.94	.79	.39	.71
\$3,000-\$4,000.....	100.0	3.84	4.30	1.20	1.86	.98	.88	.39	.85
\$4,000 and over.....	100.0	3.80	4.08	1.44	1.40	.80	.60	.46	.78
All housekeeping families.....	24.3	3.17	1.01	.34	.39	.20	.19	.09	.19
Under \$1,000.....	15.6	2.10	.56	.20	.26	.12	.14	.04	.06
\$1,000-\$2,000.....	20.0	2.52	.80	.26	.27	.11	.16	.07	.20
\$2,000-\$3,000.....	28.1	3.24	1.24	.45	.48	.26	.22	.11	.20
\$3,000-\$4,000.....	25.7	3.56	1.11	.31	.48	.25	.23	.10	.22
\$4,000 and over.....	26.3	3.93	1.07	.38	.37	.21	.16	.12	.20
<i>Region</i>									
All families consuming home-processed fruits and/or vegetables.....	100.0	3.40	4.14	1.38	1.59	.83	.76	.39	.78
Northeast.....	100.0	3.37	4.28	.94	2.39	1.41	.98	.48	.47
South.....	100.0	3.55	4.36	1.53	1.53	.58	.95	.19	1.11
North Central.....	100.0	3.58	4.45	1.46	1.65	.90	.75	.52	.82
Mountain and Pacific.....	100.0	3.01	3.33	1.67	.59	.27	.32	.28	.79
All housekeeping families.....	24.3	3.17	1.01	.34	.39	.20	.19	.09	.19
Northeast.....	20.1	3.26	.86	.19	.48	.28	.20	.10	.09
South.....	21.4	3.17	.93	.33	.32	.12	.20	.04	.24
North Central.....	25.6	3.21	1.13	.37	.42	.23	.19	.13	.21
Mountain and Pacific.....	35.8	2.91	1.19	.60	.21	.10	.11	.10	.28

¹ Includes home-processed food consumed that was initially raised by the family, raised by friends or relatives and given to the family, or gathered by the family (such as wild products). See table 1 for definitions of housekeeping families and of income.

² Includes juices.

Labor Conditions in Japan

Summary

LABOR conditions in Japan have been greatly influenced by three characteristics of modern Japanese industrial life—the newness of Japanese industrialization, a deeply rooted paternalism, and the domination of Japanese industry and finance by a few closely knit groups, each controlling an industrial empire of factories, mines, transportation, banking, etc. Japan's sudden and successful entrance into international, industrial competition appears to have been due not to extensive natural resources, capital, or mechanical equipment, but to a policy of low wages and long hours applied by a powerful governing class to an industrious working population.

The gainfully employed population in 1930, the date of the last census for which detail is available, numbered 29,619,640 out of a total population of 64,450,005. Of this number, 14,686,731—almost half—were engaged in fishing and agriculture, 251,220 in mining, and 5,699,581 in industry. By 1940 the total population had risen to 73,114,000 and the number of workers employed in industry to 8,821,000. In mid-1942 total industrial employment was 9,547,000—an increase of more than 18 percent since June 1939, with the largest increases in the heavy industries.

The average daily earnings of Japanese industrial workers for some years preceding World War II were about 2 yen, at the old parity, \$1.00 in United States currency. By December 1942 the average daily wage for men in factories was 3.54 yen, for women 1.40 yen. The highest rate for men was 4.12 yen (in the metal industry); for women it was 1.72 yen (in printing and bookbinding). The average earnings of the Japanese worker were somewhat higher than the money wage would indicate, because of various supplementary payments such as payments in kind and dismissal allowances, and because of the absence of weekly rest days.

Hours of labor, however, were very high—ranging from 9 to 10 per day in normal times and to 12 in wartime. An effort was made to reduce hours in order to increase efficiency, and in May 1944 the average number of hours worked was 10.33.

Although trade-union organization in Japan was retarded by the predominance of agriculture and the handicraft and small home occupations, from 1921 onward it grew in size and prestige. However, trade-unions in Japan were never "free" in the western sense of the word. The strongest organization was among seamen. The Japan Trade-Union Council, which had 263,914 members in 1936 (almost two-thirds of all members), was the most successful in forming a federation. In 1937 the Government began to convert the trade-unions into patriotic societies. The Patriotic Industrial Associations were modeled on the Nazi pattern, all the workers in an enterprise being grouped in one body, with the manager of the enterprise as leader.

Collective bargaining developed even more slowly than trade-unionism. Neither institution was explicitly sanctioned by law. By March 1936, there were 122 collective agreements in force, covering 136,000 workers, of whom seamen accounted for 117,000.

The number of industrial disputes in Japan reached a peak in 1931 (2,456). Between 1924 and 1942, the average number of workers per dispute ranged from 47 to 121. A Labor Disputes Conciliation Act was promulgated in 1926, and 2 years later a special tribunal was formed to deal with maritime labor disputes. Under the 1926 act compulsory arbitration, through an appointed board made up of representatives of employers, workers, and the public, was applied to disputes in industries affected with public interest. Findings were not necessarily binding. An unofficial organization, the Harmonization Society (*Kyochō Kai*) played an important part in settling labor disputes. It was later used to get support for the war.

Cooperatives of one kind or another served more than a fourth of the Japanese population in 1938. Nearly 90 percent of all cooperatives made loans to members, in addition to whatever other business they might carry on. Cooperatives were favored, promoted, and also closely controlled by the Government, but only a small proportion of them—mainly urban consumers' associations—were genuinely independent and self-supporting.

Until the start of preparations for war against China, the social insurance was limited to sickness insurance for wage earners and salary workers and to workmen's compensation covering factories, mines, etc. In addition to this, Japan had a long-established system of post-office life insurance. Social insurance was later extended; a compulsory system of separation allowances was adopted, as well as special insurance for seamen, a family-allowance system, and compulsory sickness insurance for commercial workers and persons of small incomes in agriculture.

Employment Conditions

THE LABOR FORCE

Labor was the chief industrial asset of prewar Japan. Upon it, rather than upon any other resource, rested Japan's rapid industrialization. Raw silk, the one abundant raw material of the country, was largely the product of labor. For cotton textiles, the raw materials were imported; for the iron and steel industry the native supplies of coal were unsatisfactory and of iron ore, negligible.

Barely half a century ago, Japan's economy was essentially feudal and agricultural. The country was overcrowded, with the usual farm about 2½ acres in size, and the rural standard of living was low. The factory system was imposed upon the country quickly. As the people showed no enthusiasm to enter the factories, mills, or mines, recruitment methods had to be used, particularly to bring rural young women into the textile industry. Labor turn-over in this and other industries was high. Stealing of labor by one employer from another was not uncommon.

Workshops were generally small. Comparatively recently, according to scattered references, the number of workers employed in small shops (usually employing fewer than 5) ranged from 50 to 100 percent of the number in the larger plants. Apprentices lived in the homes of proprietors of many of these shops, under rigid discipline and at very low pay.

The wages offered to attract farm labor to the factory were higher than those paid on the farm, but were still extremely low by Western

standards. With these low wages and very long hours, Japan possessed the "cheap labor" which contributed to make her an important competitor in international trade.

The war production of the past years has greatly expanded the heavy industries, partly at the expense of the light. Whether these changes have much altered the labor attitudes and practices noted above is not known. There is no reason to believe, however, that fundamental characteristics have changed. A strain of paternalism runs through the whole industrial life of Japan, affecting living and working conditions of the industrial population and particularly the relations between employers and employees.

OCCUPATIONAL DISTRIBUTION OF POPULATION IN PEACETIME

The total population of Japan proper in 1930, according to the last census for which occupational data are available, was 64,450,005, of whom 29,619,640 were gainfully occupied. Almost half of the gainfully occupied were engaged in agriculture and fishing, about a fifth in industry, and more than a sixth in commerce, as is indicated in table 1.

TABLE 1.—*Gainfully Occupied Population in Japan, 1930, by Branch of Industry and Sex*

Industry or profession	Gainfully occupied	Employers and self-employed	Wage earners and salaried employees		
			Total	Males	Females
All industries.....	29,619,640	9,545,789	20,073,851	10,676,109	9,397,742
Agriculture and fishing.....	14,686,731	5,238,736	9,447,995	3,444,541	6,003,454
Mines.....	251,220	9,790	241,430	200,496	40,934
Manufacturing and mechanical.....	5,699,581	1,661,900	4,037,681	2,808,985	1,228,696
Communications.....	1,107,574	182,306	925,268	848,020	77,248
Public administration and liberal professions.....	2,044,151	222,914	1,821,237	1,532,051	289,186
Commerce.....	4,478,098	2,195,542	2,282,556	1,299,831	982,725
Domestic service.....	781,319	—	781,319	84,203	697,116
Other.....	570,966	34,601	536,365	457,982	78,383

Almost 20 percent of the 5,699,581 industrial workers were in the textile industry in 1930. Workers in the heavy industries (metal, machinery, shipbuilding, etc.) constituted about 12 percent of all industrial workers, even at that time, prior to active war preparation.

By 1940, the population of Japan proper had reached 73,114,000, increasing 13 percent in the decade 1930-40.

EMPLOYMENT IN INDUSTRY, 1931-42

Between 1931 and 1939 total employment in industry almost doubled, as is shown in table 2. This growth could not be explained simply by absorption of the unemployed; laborers must have been recruited from agricultural workers, salaried employees, and persons not previously in the labor market. By mid-1942 total employment had reached 9,547,000—an increase of more than 18 percent since June 1939.

Employment in mines and factories both showed marked increases in the period 1931-42. Mine workers increased in number almost 175 percent from 1931 to 1939 and maintained almost the same pace

until 1942. Factory workers were 125 percent more numerous in 1939 and almost 180 percent more numerous in June 1942 than in 1931. Employment in communications and employment of day laborers both declined in the same period.

The largest increases in factory employment were in the heavy industries—mechanical engineering, shipbuilding and metal production and manufacture of tools and machines.

TABLE 2.—*Number of Workers Employed in Specified Industries in Japan, 1931-41*

Year and month	Population (in thou- sands)	Number of workers employed (in thousands)								
		All indus- tries	Fac- tories	Min- ing	Com- mu- nica- tions	Civil engineer- ing and building	Gas, elec- tric and water supply	Agri- cul- ture and for- estry	Fish- ing	Day labor
1931.....	65,367	4,670	2,026	196	507	(1)	(1)	(1)	(1)	1,942
1935.....	69,254	5,907	2,792	275	544	(1)	(1)	(1)	(1)	2,295
1937.....	71,253	6,422	3,407	366	549	(1)	(1)	(1)	(1)	2,100
1938.....	72,223	6,765	.....	(1)	(1)	(1)	(1)	(1)	(1)	.....
June.....	.....	6,594	3,624	395	547	(1)	(1)	(1)	(1)	2,027
December.....	.....	6,765	3,855	436	545	(1)	(1)	(1)	(1)	1,929
1939.....	72,876	.....	.....	.....	.....	.....	.....	.....	.....	.....
June.....	(1)	8,051	4,408	474	512	350	69	656	259	1,261
December.....	(1)	8,829	4,650	494	501	374	73	1,292	252	1,192
1940.....	73,114	.....	.....	.....	.....	.....	.....	.....	.....	.....
June.....	(1)	8,563	4,799	514	509	397	72	805	274	1,193
December.....	(1)	8,821	4,939	545	517	415	79	898	274	1,153
1941: June.....	(1)	9,195	5,172	569	527	458	83	922	313	1,151
December.....	(1)	9,224	5,357	581	515	478	83	809	289	1,112
1942: June.....	(1)	9,547	5,670	585	498	517	86	862	280	1,050

¹ No data.

Unemployment.—Unemployment dropped steadily from 1931 to 1939—that is, throughout the period of war preparation and the early years of war. In 1931 the unemployed totaled 471,000 and in 1939 only 185,000.

Employment of women and children.—Up to 1930 females exceeded males in total factory employment in Japan. The textile industry, the first major industry to be developed, was staffed primarily by women. After the development of the armament industry, however, males were more in demand and by 1937 outnumbered female factory workers by 50 percent. In June 1942 women constituted about two-sevenths of the workers in factories.

Recent information on employment of minors is not available. In 1937 about 10 percent of all factory workers were under 16 years of age—the majority of these being in the textile industry. Under the law as it existed up to 1937 children had to attend school for 6 years, beginning at 6 years of age. These regulations were almost wholly relaxed by 1944.

Employment Exchanges

The creation of free employment exchanges in towns of more than 30,000 population was made compulsory by an Imperial decree of 1923. A State subsidy for building and organizing such agencies had already been provided, for the system began in 1921 and the Seamen's Employment Exchanges were opened in 1922. Later, separate exchanges were established to handle special categories of work-

ers, and in 1934 the system was extended to rural areas. These free national exchanges were administered in collaboration with an Advisory Central Employment Exchange Commission and local commissions including representatives of employers and workers.

Until 1938 the number of vacancies, applicants, and placements rose steadily, as is shown in table 3. The beginning of labor scarcity may be seen in the drop in the number of applicants that year. About two-thirds of the workers using the exchanges were males.

TABLE 3.—Operation of Public Employment Exchanges in Japan, 1933-38¹

Year	Number of ex- changes	Vacancies (in thousands) ¹		Applicants (in thousands) ¹		Placements (in thousands) ¹		Place- ments as per- cent of appli- cants
		Total	Males	Total	Males	Total	Males	
1933	456	1,452	808	1,528	1,002	663	371	41.4
1934	522	1,704	956	1,570	1,068	672	426	42.8
1935	587	1,918	1,072	1,680	1,143	742	475	44.2
1936	605	2,297	1,333	1,778	1,219	812	526	45.7
1937	658	2,804	1,751	2,092	1,523	966	694	46.2
1938	362	2,931	2,002	2,048	1,506	971	695	47.4

¹ Does not include "day" laborers.

Private employment agencies.—In 1923 when the free public system was created, there were some 10,000 private fee-charging agencies in operation serving as many as 1,000,000 clients in a year. Although regulations of 1925 required that such offices operated for profit were to be licensed and supervised by public authorities, abuses existed.

Wartime control of placement.—In March 1938, when the war with China was well under way, all employment agencies in Japan were brought by law under State control. Four hundred Government exchanges with a number of branch exchanges were to be maintained, and orders were issued creating a register of vocational qualifications to use as a base for labor supply and demand in the munitions industries.

This wartime legislation appears to have terminated a practice of labor recruitment by which individual plants sent agents (numbering some 14,000 in the early thirties) traveling through the country to engage workers.

Wages, Hours, and Working Conditions

The average wage of Japanese industrial workers for some years preceding World War II was approximately 2 yen per day. This was roughly equivalent to \$1.00 in United States currency at old parity; the average wage of males was about \$1.25 and that of females about 75 cents or less. Monthly earnings would be higher than the daily wage indicated, because of the absence of regular rest days.

As indicated in table 4, both rates and earnings were lower in 1937 than in 1926. By 1938 earnings had surpassed those of 1926 by 5.6 percent and by 1940 wage rates had reached the 1926 level. Thereafter both climbed fairly fast, though earnings rose much more quickly than rates. During the whole period, the index of wage rates rose 39 percent, and that of earnings 77 percent; the index of cost of living rose 54 percent.

TABLE 4.—*Indexes of Industrial Wage Rates, Earnings, and Cost of Living, in Japan, 1937-42*

Year and month	Indexes of—		
	Wage rates (1926=100)	Earnings (1926=100)	Cost of living (July 1937=100)
1937.....	80.4	96.8	100
1938.....	85.4	105.6	110
1939.....	93.3	118.6	121
1940.....	100.6	134.8	144
1941.....	¹ 109.3	¹ 161.4	147
1942: March.....	111.7	160.7	² 154
June.....	109.8	162.0	(³)
September.....	112.0	164.1	(³)
November.....	112.0	171.6	(³)

¹ For December 1941.² For year 1942.³ No data.

WAGES BY INDUSTRIES

In manufacturing in Japan in 1939 and 1942 the metallurgical industry had the highest daily earnings for both men and women (as shown in table 5). The ceramics, the chemical, and the water, gas, and electricity industries paid average earnings or a little above and the textile industry stood undeniably the lowest in earnings both in 1939 and 1942. Earnings in mining and transportation were higher.

TABLE 5.—*Average Daily Earnings in Specified Industries in Japan, 1939 and 1942, by Sex of Workers*

Industry	November 1939		January 1942				December 1942			
	Males	Females	Total		Plants employing—		Total		Plants employing—	
			Males	Females	Under 50—Males	Over 50—Males	Males	Females	Under 50—Males	Over 50—Males
	Yen	Yen	Yen	Yen	Yen	Yen	Yen	Yen	Yen	Yen
Manufacturing and mechanical industries.....	2.57	0.95	3.26	1.31	2.71	3.29	3.54	1.40	3.21	3.56
Metal.....	2.95	1.11	3.77	1.45	3.25	3.88	4.12	1.57	3.90	4.13
Mechanical engineering.....	2.59	1.28	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Shipbuilding, rolling stock.....	2.74	1.10	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Precision instruments.....	2.61	1.13	² 3.30	² 1.62	² 3.00	² 3.31	² 3.55	² 1.71	² 3.54	² 3.55
Ceramics, glass, building material.....	2.42	1.03	3.11	1.37	2.66	3.18	3.54	1.50	3.20	3.62
Lumber and woodcraft.....	² 2.11	² .97	2.70	1.24	2.71	2.69	3.16	1.35	3.19	3.13
Paper and printing.....	2.37	1.06	3.18	1.61	2.83	3.25	3.61	1.72	3.37	3.66
Textiles.....	1.68	.82	2.29	1.08	2.34	2.28	2.55	1.15	2.69	2.53
Clothing (and shoes).....	2.20	1.14	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Leather, ivory, feathers.....	3.29	1.67	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Chemical products.....	2.20	1.03	3.08	1.39	2.65	3.10	3.33	1.51	3.18	3.34
Food, drinks, and tobacco.....	2.09	1.01	2.58	1.29	2.27	2.72	3.01	1.44	2.66	3.17
Water, gas, electric supply.....	2.70	1.05	3.25	1.33	2.71	3.33	3.46	1.44	2.99	3.54
Other.....	(¹)	(¹)	2.85	1.27	2.53	3.02	3.18	1.37	2.85	3.35
Mining.....	2.63	-----	3.87	2.66	(¹)	(¹)	4.21	2.78	(¹)	(¹)
Coal.....	2.85	-----	4.05	2.75	(¹)	(¹)	4.34	2.86	(¹)	(¹)
Metal.....	2.09	-----	3.41	2.04	(¹)	(¹)	3.85	2.30	(¹)	(¹)
Oil.....	1.73	-----	4.53	-----	(¹)	(¹)	5.37	-----	(¹)	(¹)
Transportation and communication.....	2.30	1.27	2.77	1.46	(¹)	(¹)	3.43	1.90	(¹)	(¹)
Railroad.....	² 2.39	² 1.43	2.63	1.56	(¹)	(¹)	3.03	1.60	(¹)	(¹)
Bus.....	-----	-----	3.27	1.55	(¹)	(¹)	4.01	1.91	(¹)	(¹)
Truck.....	-----	-----	3.19	1.42	(¹)	(¹)	3.81	1.53	(¹)	(¹)
Cart.....	-----	-----	3.89	1.53	(¹)	(¹)	4.90	1.91	(¹)	(¹)
Maritime (shipping).....	2.13	-----	2.30	-----	(¹)	(¹)	2.61	-----	(¹)	(¹)
Postal, telegraph, and telephone.....	1.76	1.20	2.01	1.42	(¹)	(¹)	3.18	1.98	(¹)	(¹)

¹ No data.² Machines and tools.³ Wood and bamboo.⁴ Land.

Wages and hours in Tokyo.—Average wages per day in Tokyo in 1940 ranged from a low of 0.91 yen for female spinners in the textile industry to 4.97 yen for riveters, 5.05 yen for leather makers, and 5.17 yen for blacksmiths. Although other cities showed certain high rates in a special industry, comparative data indicate that the wage level as a whole was relatively high in Tokyo, above the average of 13 large cities combined. From the data on hours of work provided in table 6 it may be seen, however, that hours worked were very long.

TABLE 6.—Average Daily Wages and Working Hours, by Occupation, in Tokyo, 1940

Industry	Average daily working hours	Average daily wages	Industry	Average daily working hours	Average daily wages
General average	10.02	Yen ¹ 2.88	Chemical industry—Continued		Yen ¹
Textile industry:			Match makers	7.30	2.09
Reelers, silk filature ²	10.07	.92	Match makers ²	7.29	1.01
Spinners, cotton yarn ²	8.44	1.03	Japanese-paper makers	11.14	2.44
Spinners, silk thread ²	8.41	.94	Printing-paper makers	12.17	2.53
Spinners, woolen yarn ²	9.02	.91	Sulphate of ammonia workers	10.03	2.92
Throwers, cotton yarn ²	8.46	1.10	Soap workers	10.23	2.99
Throwers, silk ²	10.00	1.25	Leather makers	10.30	5.05
Weavers, cotton, power loom ²	8.45	1.09	Oil pressers	10.32	2.42
Weavers, silk, power loom ²	9.52	1.50	Foodstuff manufacture:		
Weavers, silk, hand ²	9.40	1.56	Flour millers	12.04	2.63
Weavers, rayon, power loom ²			Brewery workers:		
Weavers, wool, power loom ²	9.20	1.35	Beer	10.33	2.35
Scourers and bleachers	11.43	3.33	Soy	8.01	2.17
Printing workers, power	10.56	2.96	Sugar-refining workers	11.35	3.13
Printing workers, hand	10.08	3.98	Confectioners	10.55	2.67
Finishers, cloth	10.44	3.40	Canners	9.06	2.55
Knitters	9.38	2.88	Wearing-apparel manufacture:		
Knitters, female	10.07	1.20	Tailors, foreign clothes	10.08	2.48
Metal industry:			Hat makers	9.53	2.53
Open hearth and furnace workers	11.35	3.96	Shoemakers	10.01	2.45
Founders	9.56	4.26	Clog (<i>geta</i>) makers	12.11	2.55
Rollers, bar mill	11.28	4.37	Woodworking industry:		
Gilders	9.43	2.36	Sawyers	10.07	2.70
Machines and tools:			Joiners	9.35	4.24
Blacksmiths	10.11	5.17	Lacquerers	9.12	2.76
Wooden-pattern makers	10.13	4.58	Mat makers	8.48	3.12
Lathe men	9.21	4.13	Printing and binding:		
Milling men	9.09	4.13	Compositors	10.55	3.12
Grinding-machine operators	9.17	4.54	Bookbinders	11.52	3.21
Welders	9.01	3.77	Building industry:		
Riveters	9.42	4.97	Carpenters	(³)	3.24
Assemblers	10.01	3.93	Plasterers	(³)	3.50
Finishers	9.43	4.15	Stonemasons	(³)	3.77
Ceramics:			Roofing tile layers	(³)	3.76
Cement workers	11.30	2.29	Reinforced-concrete workers	(³)	3.20
Glassmakers	9.37	2.95	Bricklayers	(³)	4.03
Potters	8.41	2.35	Painters	(³)	3.22
Brick pattern makers	10.00	1.76	Stevedores and day laborers:		
Tile-pattern makers	9.53	2.65	Stevedores, shore	(³)	3.49
Chemical industry:			Stevedores, offshore	(³)	4.25
Sulphuric acid workers	12.16	3.69	Day laborers, male	(³)	2.40
			Day laborers, female	(³)	1.45

¹ Average exchange rate of yen in 1940=23.44 cents.

² Female.

³ No data.

SPECIAL FACTORS AFFECTING WAGES

Time and piece work.—Wage rates in Japan were in general based on the day, rarely on the hour or week. Time rates predominated, but the piece-rate system was widely practiced and, in many cases, the daily time rate was actually based on a task system. It is reliably reported that the piece-rate systems were often so complex as to be beyond the comprehension of many workers, especially the uneducated girl operators in the silk factories.

In some industries, especially in mines, the contract system was used, the contracts for a specified amount of output being made with individuals, or with groups through intermediary middlemen. In the latter instance, the middleman paid the workers and made what profit he could.

Overtime pay.—Extra wages were usually paid at progressive rates for overtime worked before or after the regular working hours and on holidays. The practice applied to both time and piece workers. Scattered data indicate that overtime pay constituted an important part of the earnings of workers in factories and mines, in spite of the customary long working hours.

Wage supplements.—Bonuses of at least three different types were frequently paid in Japan. The regular- or full-attendance bonus was usually equal to from 1 to 3 days' wages per month. Annual or semi-annual bonuses varied with the prosperity of the employing establishments. Bonuses for specially long or useful services were also given. In some cases, the bonus system became a form of profit sharing in which, however, the employee had no contractual right. In Yokohama in 1937 bonuses averaged 4 percent of the total pay roll, the payments to workers depending on length of service.

Payments in kind were used to supplement money wages in a large proportion of Japanese factories and mines. The practice was particularly common in the textile industry in which the girl workers from rural districts, who constituted a large part of the labor force, were housed in dormitories, their board and clothing being furnished by the employer. In 1927 payments in kind were estimated to constitute about 17 percent of daily wages in the textile industry. In other industries the value of payments in kind in 1927 usually formed a smaller proportion of the total wage.

Wage deductions.—In prewar days the only important deductions from wages, other than those imposed by the employer for tardiness, were the deductions made for the support of the health-insurance system. These amounted to from 2 to 3 percent of wages.

WARTIME CONTROL OF WAGES

Before World War II, Japanese legislation concerning wages was limited to general protective provisions which related to saving funds, the periodicity of wage payments, etc. After the attack on China in 1937, the Labor Inspectorate was empowered to control wage rates and working hours in certain factories and mines. In March 1939 a wage-regulation system provided for wage boards of officials and experts, with the purpose of eliminating differences in rates of wages in an estimated 32,000 industrial and mining companies with 1,447,000 workers. In June 1939, standard wage rates of employed inexperienced operatives were frozen, and an imperial order of October 1939 set prohibitions upon the employers' right to raise wage rates. By 1941 maximum starting wages for experienced and inexperienced workers had been established for most industries.

HOURS OF LABOR

Working hours in Japan, even in peacetime, were very long and had shown no improvement over a period of years. The actual daily hours of work (excluding rest and lunch periods) averaged 9.83 in 1929,

9.85 in 1935, 9.94 in 1938, and 9.46 in 1939, according to the International Labor Office. According to Japanese sources, the average daily working time in May 1943 was 10.35 hours and in May 1944, 10.33. In January 1944, only in the textile and ceramic industries was the workday less than 10 hours; in the manufacture of ready-made clothing and the chemical industry it was over 11 hours.

Prior to 1938 there were no legal limitations on hours of labor except for women and minors (11-hour day) and underground miners (10-hour day). During preparations for war, the 12-hour day became common in armament plants, and absenteeism, accidents, etc., increased so greatly that the Government endeavored to limit daily hours of work to less than 12, including rest-time and overtime. At least 2 days of rest monthly, and rest periods during the day, were to be granted. Definite daily limits were later set for specific industries.

Rest days, night work.—Japan has no equivalent of the Western Sunday, and most industrial and commercial establishments followed the old custom of giving 2 rest days a month, in addition to several annual national holidays. Early factory legislation made this rest obligatory for women and minors, and in 1939 it became so for men. Night work for women and young persons in mines was forbidden in 1928 and in factories in 1929.

Labor Administration and Legislation

Provision for a specialized body for labor administration in Japan was first made in 1922, largely owing to that country's affiliation with the International Labor Organization. In that year a Bureau of Social Affairs was established in the Department of the Interior, to handle most labor matters. An inspection service which functioned within the Bureau enforced the Factory Act, the Minimum Age of Industrial Workers Act, and measures for the protection of miners. In 1938, efforts to strengthen the Government's work in the field of labor led to the establishment of a Bureau of Labor within the newly created Department of Welfare. The Bureau of Social Affairs was transferred from the Department of the Interior to the Department of Welfare, and was given the administration of the employment-office system. A social-insurance division of the Department of Welfare took charge of the systems for health insurance, workmen's compensation, and allowances paid in case of dismissal or retirement. To the Bureau of Labor were specifically assigned (1) matters concerning labor conditions generally, (2) labor hygiene in factories and mines, and (3) relations with the International Labor Organization.

Local enforcement of labor laws and regulations was placed under the governors of the 46 prefectures. The police system, which was nationally organized under the Department of Home Affairs, performed an important part in handling labor disputes.

After the war started, progressively tightened controls over labor were enforced by the Labor Inspectorate and special boards appointed by the Government. A series of orders was issued in 1939 requiring registration of different classes of workers, the most important affecting some 5,000,000 in industry. In 1944, the Ministry of Welfare issued regulations governing the number of workers that contractors

in construction and other industries might hire directly or through Government agencies. Early in 1945 all workers (including students, retired persons, etc.) were to be mobilized and the unemployed were required to register, and became liable for labor draft. Employers had to apply for a labor quota and workers could be assigned to compulsory employment. According to data presented by the Japanese Welfare Ministry, 13,104,269 persons were mobilized in critical industries when the war ended.

LABOR LEGISLATION

The Mining Act of 1905, the Regulations for the Employment and Relief of Miners of 1916, and the Factory Act of 1911 which went into effect in 1916 constituted the basic legislation for the protection of labor in Japan. As long as the economy and industrial relations were dominated by paternalism, there seemed to be no occasion for labor laws. In spite of a growing realization that the Government had some responsibility for the operatives of the power-driven plants, Japanese labor legislation was very limited compared with that in European countries, even as late as 1937.

Labor and Employer Organization

Labor organization in the form of modern trade-unions began in Japan before World War I, developed slowly for the next 20-odd years, and collapsed on the establishment of a totalitarian government after 1937. Employer organization was exceedingly powerful, for the concentration of basic industries among a few owners was probably greater in Japan than in any other country in the world.

LABOR ORGANIZATIONS

Trade-union organization in Japan was retarded by the predominance of agriculture, the handicraft and small-scale home occupations, and the traditional family system. At the time of the first conference of the International Labor Organization in 1920, Japan had 273 trade-unions with fewer than 100,000 members, and the Japanese delegate to the Conference was a nonunion man. After 1921 and especially after the introduction of manhood suffrage in 1926, the Japanese trade-union movement gained in both prestige and membership, until in 1937 the Government began to convert the unions into patriotic societies.

The strongest organization was among seamen who constituted about a fourth of all trade-unionists. Other groups were industrial or craft unions which had wide differences in ideology.

Of the unions, the most successful in forming a federation for unified action was the Japan Trade-Union Council. In 1936 it included 9 separate trade-unions, with a membership of 263,914—almost two-thirds of the total in the country. The trade-union movement was at its height at that time, and early in 1937 action to obtain wage increases of 10 to 30 percent brought some success.

In the parliamentary elections of April 1937, the Social Mass Political Party, which most of the unionists supported, polled nearly 1,000,000 votes and elected 37 representatives to the lower house.

In July, however, the invasion of China put Japan on a war footing and the militaristic-fascist Government, disliking democratic trade-unionism, began to organize State-controlled "patriotic" unions. The Patriotic Industrial Associations were established in 1938; in 1939 they were consolidated in a national federation with several million members. In its essential aspects, the organization was modeled on the Nazi system. All the employees in each enterprise were grouped in a special "cooperative body," with "the manager of the enterprise as leader," and these groups made up the district and national federations.

According to Japanese reports, the trade-unions discontinued their "class conscious" activities voluntarily and affiliated themselves to the new patriotic associations or bodies. The Japanese labor movement apparently had never established itself strongly. The Government had been its chief opponent, opposing union organization from the very beginning and dissolving forthwith any union that became powerful. The Japanese national police attended labor meetings and watched the leaders, and reported back to the Home Ministry. They interfered in strikes and prevented meetings. The Government did not support or protect trade-unions with legislation. It retained the authority to forbid any labor organization it deemed harmful and it exercised this power frequently.

The weaknesses and difficulties of the Japanese labor-union movement were due in some degree to the youth of Japanese industrial life. However, the strength of the movement could not be measured in terms of membership only, for it was apparently a force working for the improvement of general social conditions and the democratization of social life.

EMPLOYER ORGANIZATIONS

The large employers in Japan were very well organized. Centralization of industry increased progressively, including not only manufactures but also raw materials, transportation and banking.

The demand for Government backing in rounding out cartelization developed more strongly when the Government endeavored to gear the economic administration to greater war production. The Major Industries Association Ordinance of 1941 provided for key industry-control commissions. The functions of the control commission were exceedingly broad, including the control of production and distribution, the supply of labor, raw materials, and capital, and participation with the Government in planning the "national program" of the industry. The procedure outlined for appointing the presidents of the commissions practically guaranteed that the Cabinet Minister to whose sphere the industry belonged would appoint a president from within the industry. The system created in 1941 became more and more centralized as the war continued.

Industrial Relations

In no field of Japanese life was the change to modern industrialism in the last quarter of the nineteenth and the first quarter of the twentieth century more difficult than in industrial relations, involving as it did a shift from the personal feudal relationship to that of employer and employed.

COLLECTIVE BARGAINING

The first collective agreement was negotiated by the Japan Seamen's Union in 1928. Two years later, according to a report of the Bureau of Social Affairs, seamen accounted for 100,000 of the 110,000 workers covered by the 49 collective agreements in effect. By March 1936 the number of agreements had risen to 122 and the number of covered workers to 136,000 with seamen still providing the great majority of these workers (117,000). More than half of the collective agreements were in establishments employing fewer than 100 persons each—31 agreements in machine and tool engineering, 28 in a group of miscellaneous industries, and 22 in transportation. Some of the agreements provided for joint committees which determined employment conditions.

INDUSTRIAL DISPUTES

Although a strike of jinricksha men against a tramway system occurred in Tokyo in 1883 and strikes became more or less organized protests after 1907, it was not until unemployment and panic followed World War I that a period of large strikes began in Japan. From that time until the China war began in 1937, the increase in the number of industrial disputes was continuous though not uniform. The number of strikes reached a peak in 1931, the year of the seizure of Manchuria, and decreased thereafter, as is indicated in table 7.

TABLE 7.—*Number and Type of Industrial Disputes in Japan and Number of Workers Involved, 1924-42*

Year	Total disputes		Disputes accompanied by strikes, sabotage, or lock-outs		Year	Total disputes		Disputes accompanied by strikes, sabotage, or lock-outs	
	Number	Workers involved	Number	Workers involved		Number	Workers involved	Number	Workers involved
1924.....	933	94,047	333	54,526	1937.....	2,126	213,622	628	123,730
1926.....	1,260	127,267	495	67,234	1938.....	1,022	53,550	(1)	(1)
1928.....	1,021	101,893	397	46,252	1939.....	1,120	128,294	(1)	(1)
1930.....	2,290	191,838	907	81,362	1940.....	732	55,003	(1)	(1)
1932.....	2,217	123,313	893	54,783	1941.....	330	14,874	(1)	(1)
1934.....	1,915	120,307	626	49,536	1942 ²	150	9,254	(1)	(1)
1936.....	1,975	92,724	547	30,900					

¹ No data.

² To end of October.

An analysis of industrial disputes in 1936, 1937, and 1938, by the nature of the demands made by labor, shows some similarity with types of demands in the United States. Demands for union recognition, however, were relatively few, whereas demands regarding pensions were very numerous.

The right to strike was not explicitly recognized in Japanese legislation. During Parliamentary discussion on the conciliation bill of 1926, however, the Government implied that such right would be recognized. Under the Public Peace Police Act at the opening of the twentieth century, almost all labor agitation was suppressed. Parts of this legislation which interfered with the right to strike were repealed

after 1926, but later police regulations on strikes were stated to be more stringent than those repealed.

A classification of labor disputes by industries for the years 1934 to 1938 indicates that the largest number of disputes in each of those years (except 1934) occurred in the metal, and machines and tools industries. The textile industry also had a high strike frequency in spite of the recognized difficulty of organizing the great numbers of women and girls employed.

CONCILIATION AND ARBITRATION

The first national legislation for the settlement of disputes by conciliation boards was the Tenancy Disputes Conciliation Act of 1924, enacted to handle disputes between tenants and landowners during the depression which followed World War I. This method of settlement was extended to industrial disputes by the Labor Disputes Conciliation Act of April 1926. In the same year the Bureau of Social Affairs established a special conciliation section. In 1928 the Government created a Joint Maritime Board for the conciliation of disputes regarding seamen.

Under the Labor Disputes Conciliation Act, submission of a dispute affected by public interest (as in railroads, other utilities, etc.) to a conciliation board was practically compulsory; in other industries submission was voluntary. The conciliation boards consisted of representatives of employers, employees, and the public, appointed by State authorities. Police appear to have acted in "mediation." Of 1,823 industrial disputes in 1930, mediation took place in 659.

The Joint Maritime Board was composed of equal representation from shipowners and seamen's unions and its expenses were paid by these groups and the State. In addition to the work of mediation mentioned above, the Board operated employment exchanges (as a result of the International Labor Convention of 1920).

Private conciliation measures.—An unofficial organization, the Harmonization Society (*Kyocho Kai*), which was created after World War I on recommendation of a Government Commission, played an important part in the settlement of labor disputes as well as in other social reform measures. It developed a set of model rules for plant committees which were followed in many plants. Although it did not intervene in industrial disputes, it frequently acted successfully as mediator.

The Cooperative Movement

Active cooperative associations registered under the cooperative law of Japan numbered 15,328 in 1938, with 6,842,228 members, or about 9.5 percent of the total population. Counting families, over a fourth of the population was served by cooperatives in that year. The cooperative movement as a whole, however, was neither voluntary nor self-contained. Because of the confusion in legal definition which began with the original cooperative law of 1900, private businesses and employers found it advantageous to organize cooperatives, and the Government not only organized these but, at times, made cooperative membership compulsory.

Although Japan for centuries had had certain primitive credit associations of a cooperative nature (the *Mujin* and *Hotokusha*

associations), the modern Japanese cooperative movement began with the enactment of the cooperative law of 1900. At the opening of World War II, cooperative law authorized four types of business—credit, marketing, “utility” or “utilization,” and purchasing—but several of these types of business were generally carried on by a single association.

TYPES OF ASSOCIATIONS

Credit associations.—Ninety percent of Japan’s cooperatives had credit functions in 1924. Only urban credit associations were forbidden to combine credit with other functions, and these associations numbered only 267 in 1932. Interest rates of credit cooperatives ranged from 8 to 12 percent—being 1 to 2 percent lower than current rates. Loans granted in 1938 amounted to 1,085,400,000 yen; about 70 percent of the loans were made without any security.

Marketing associations.—Cooperative marketing ranked next in importance to cooperative credit. In 1934 cooperatives handled slightly less than 12 percent of the total output of cocoons, 27 percent of the rice, and 35 percent of the wheat. Marketing cooperatives also handled fish, sugar, fuel, pottery, tea, textiles, etc. The cooperative marketing business increased rapidly in volume in the thirties, reaching 749,600,000 yen in 1938.

Utilization associations.—These associations numbered only 298 in 1935. They included not only the “service” associations providing machinery for use by members and the medical-care associations, but some that undertook production and processing such as cocoon drying.

Purchasing associations.—Under Japanese law two kinds of purchasing associations were authorized—those purchasing supplies such as raw materials for farmers and other producers, and consumers’ distributive cooperatives.

CONSUMERS’ COOPERATIVES

Cooperatives of this type were defined as “urban cooperative purchasing societies” and were relatively little developed. Fewer than 30 percent of the workingmen’s consumers’ cooperatives were truly independent autonomous associations; over 70 percent were employer-dominated. The occupational make-up of the urban consumers’ cooperatives at the end of 1933 was as follows:

	Members	
	Number	Percent
Manual workers.....	41, 869	21. 0
Civil servants and teachers.....	37, 129	18. 6
Bank and other employees.....	19, 572	9. 8
Private dealers and manufacturers.....	24, 965	12. 6
Members of liberal professions.....	4, 329	2. 2
Others.....	71, 477	35. 9
Total.....	199, 341	100. 0

According to their fields of membership, consumers’ cooperatives could be grouped as follows:

(1) Distributive associations which admitted only members of unions of industrial workers. At the end of 1932 such associations numbered 110 with 33,000 members.

(2) Associations of wage earners with open membership (amounting to almost 10,000 in 1932) not under union control. One group of these, made up largely of members of mechanics' and arsenal workers' unions, was reported to be influencing cooperatives to break away from employer control and to use cooperatives as a support in labor disputes. The other group operated strictly on Rochdale principles.

(3) Village associations originated by the farmers' unions and estimated to number about 40, with 3,700 members in 1933.

(4) Medical cooperative associations formed in 1921-29, usually by families in rural areas in order to engage the services of a doctor and a nurse, and after 1929 formed also in towns. During the year 1934-35, associations operating 1,067 infirmaries with 1,085 beds, and having a staff of 246 physicians, treated 227,605 persons. They also maintained maternity clinics and a nursing service. At the end of 1937 the National Federation of Medical Cooperatives consisted of 30 district federations, and 1,277 local associations with 679,824 members.

The Japanese Health Insurance Act of 1938, making medical care available to Japanese farmers, provided that "after two-thirds of the qualified residents have voted to form a health cooperative, the remaining number may be compelled by the Government to do so."

NATIONAL COOPERATIVE FEDERATIONS

Each of the branches of the cooperative movement had its own federation; and the general cooperative federation—the Central Union of Cooperatives—included in 1938 almost 12,000 of the 15,328 cooperative associations in Japan, with 6,252,000 members.

The Cooperative Wholesale Association of Japan, dealing mainly in fertilizer and other farm supplies, included 58 federations of 5,400 local associations in 1938. In 1937 it had a business amounting to 121,675,000 yen.

COOPERATIVES IN WARTIME

Early wartime regulations appear to have used cooperatives in mobilizing Japanese resources. In 1938 an order of the Ministry of Agriculture and Forestry provided for the organization of cooperatives in towns and villages where no cooperatives existed. In 1940 an amendment to the Agricultural Association Labor Law made it obligatory for every farmer to join a cooperative association or guild.

Social Insurance

Prior to the middle thirties, social insurance in Japan was limited to a fairly comprehensive program of sickness insurance for wage earners and salary workers and a system of workmen's compensation. Shortly before the beginning of actual war against China, Japan adopted a compulsory system of separation allowances, special insurance for seamen, and, later, compulsory sickness insurance for workers in commercial establishments and voluntary sickness insurance for persons of small incomes, especially agricultural workers.

SICKNESS INSURANCE

Wage earners.—Compulsory sickness insurance was extended by act of March 24, 1934, effective April 1, 1935, to cover wage-earning workers in establishments employing 5 or more workers in manufacturing, mining, electricity, and transportation. Coverage was broadened early in the war.

The State paid 10 percent of the insurance costs and the administrative expenses and the remaining costs were met equally by the employers and insured workers. The worker's contribution was not to exceed 3 percent of his wages; in poorly paid and hazardous occupations, the worker paid only half as much as the employer.

Benefits were restricted to 6 months, and included (1) a cash allowance amounting to 60 percent of the wage in the case of sickness or injury, irrespective of the cause, and (2) free medical attention, hospital treatment, medical appliances (except spectacles) and dental service, and (on the approval of the fund or office involved) surgical operations costing over 20 yen, and ambulance and free nursing service.

Maternity benefit, paid for 4 weeks preceding and 6 weeks following confinement, consisted of midwife attendance, a cash allowance of 20 yen, and 60 percent of the wage. A small sum was payable to survivors as a funeral benefit.

Responsibility for all medical services, exclusive of dentistry, rested with the Japan Medical Association, the State or public hospitals, and municipally owned hospitals.

Salaried employees.—From April 1, 1935, salaried employees earning 1,200 yen or less annually in industrial and mining establishments were covered by the compulsory sickness-insurance system. By act of April 5, 1939, coverage included similar employees in commercial establishments with staffs of 10 or more persons. The benefits provided resembled those defined above for wage earners, and contributions amounted to 3½ percent of salaries, the employer and the employee each paying half.

SEAMEN'S INSURANCE

A compulsory insurance system was established for crews of registered Japanese ships of more than 500 tons by act of April 5, 1939, to provide sickness, accident, invalidity, retirement, and death benefits. The system was to be administered by the Government and financed by equal contributions from employers and workers, with the State sharing in the cost of pensions.

Benefits for seamen included medical and cash allowances for 6 months, and invalidity (after a 3-year qualifying period) and old-age pensions at age of 50 (after 15 years of service).

VOLUNTARY HEALTH INSURANCE

A voluntary health-insurance scheme for persons of small means and their dependents, especially in agriculture, was created in Japan on July 1, 1938, to provide complete medical, pharmaceutical, and hospital services in illness and confinement. In each city, town, and village, an autonomous health-insurance society was to be established and supported by contributions from insured persons of small

means and from local and central authorities. The Government was empowered to make affiliation with such societies compulsory in certain sections of the country.

POST-OFFICE LIFE INSURANCE AND ANNUITIES

A post-office life-insurance system which was established by law in 1916 was an important factor in Japanese social security—covering 37,357,913 persons in 1940 and paying premiums amounting to 33,712,000 yen. Policies for whole life, endowment, and children's insurance were written. A bureau in the Ministry of Communications administered the system and local post offices handled applications, premiums, and other details.

WORKMEN'S COMPENSATION

Coverage.—Workers receiving the protection of workmen's compensation at the opening of World War II included all those covered under various mining and factory acts (beginning as early as 1905), the health insurance act of 1922, and the workmen's compensation and accident relief acts of April 1, 1931—a total of approximately 4,000,000 workers. This insurance was compulsory only for employers in the more hazardous operations of quarrying, building and construction, railways, tramways, motor transportation, loading and unloading of vessels, and the handling of goods; for other employers it was optional. Benefits were provided in the 1931 act only for death and permanent disability.

The employer was liable for compensation and medical expenses incurred for accidents, except that, in occupations covered by health insurance, the health fund cared for the first 180 days of disability.

Compensation rates were increased and made uniform for different classes of workers by amendments which became effective January 1, 1937. Temporary disability rates were to be equal to 60 percent of wages, and permanent disability and death benefits were to amount to 600 days' and 400 days' wages, respectively.

FAMILY ALLOWANCES

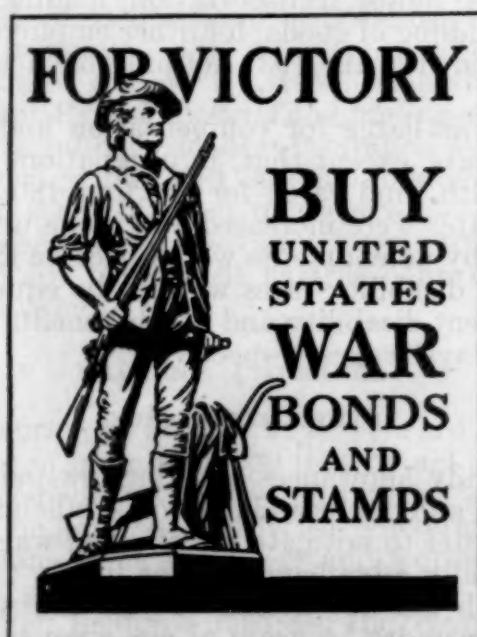
A system of family allowances covering low-paid manual workers, salaried employees, and public and municipal officials was decided upon early in 1940, in order to mitigate the effect of wage-control measures in the face of rapidly advancing cost of living. All workers whose earnings per month did not exceed 70 yen and who had 1 or more dependent children under 14 years of age were to be eligible for the allowances. The average monthly rate was 2 yen per worker. The number of manual workers in private and State establishments, scheduled to receive family allowances under the scheme, was estimated early in 1940 as 1,600,000.

In a circular sent to the prefects, the Minister of Social Affairs defined the method of application of the family-allowance scheme and recommended that employers establish, as far as possible, a system of benefits in kind to distribute the sort of provisions most commonly consumed.

EMPLOYMENT-SEPARATION ALLOWANCES

The payment of employment-separation allowances became compulsory in Japan by an act effective January 1, 1937, which required each establishment to create the following three funds: (1) A retirement-reserve fund for each worker to be made up from a 2-percent deduction from his wages each pay day, to be deposited in the Government savings bank in his name, and to be payable to him with interest when his employment ceased; (2) a retirement-allowance fund contributed by the employer and equal to 2 percent of the total wages paid, plus a Government-approved supplemental amount which was not to exceed 3 percent of the wages paid; and (3) a dismissal-allowance fund (consisting of the unexpended balances of the retirement allowance fund) which was to be used in the payment of allowances (scaled on length of service) to workers who were dismissed through no fault of their own.

The administration of the funds was to be supervised by local committees composed of workers' and employers' representatives and officials in each prefecture. Workers who were dissatisfied with allowance payments were permitted to appeal to these committees and to a central committee in the Bureau of Social Affairs.



War and Postwar Policies

Reconversion Orders and Policies

FEDERAL agencies made public their reconversion policies following the issuance of Executive Order No. 9599 of August 18, 1945,¹ which outlined a plan "for the orderly modification of wartime controls over prices, wages, materials, and facilities." The order directed all departments and agencies of the Government to expedite maximum production of goods and services by helping to make available needed materials and supplies; by aiding in the conversion and utilization of war plants and facilities; and by providing effective job-placement assistance to war workers and returning service men and women. The agencies were directed to continue the stabilization of the economy through working to prevent either inflation or deflation, and through making necessary modifications in controls over prices, wages, materials, and facilities. As rapidly as the economy will permit, the price, wage, production, and other controls are to be removed, and collective bargaining and the free market restored.

The Executive order authorized price-control agencies to "take all necessary steps to assure that the cost of living and the general level of prices shall not rise." Adjustments in existing price controls could be made to remove inequities or to correct maladjustments which would interfere with the effective transition to a peacetime economy. Any price increases found necessary for these purposes, however, were not to result in an increase in the cost of living or in the general level of prices. Agencies in control of wages or salaries were authorized to permit employers, through collective-bargaining arrangements or by voluntary action, to make wage or salary increases, if those increases do not affect price ceilings. Where there is reason to believe that price ceilings would be affected, the increase must be approved by the Director of Economic Stabilization.

Officials charged with the settlement of labor disputes are to consider that disagreements which would interrupt work contributing to the production of military supplies or interfere with effective transition to a peacetime economy are disputes which "interrupt work contributing to the effective prosecution of the war." At the same time, the War Production Board was directed to move toward freeing business from its controls. During the transition, the Board is to use its powers to expand the production of materials which are in short supply; limit the manufacture of products for which materials or facilities are insufficient; control inventories to avoid speculative hoarding and unbalanced distribution which would curtail total production; grant priority assistance to break bottlenecks which would impede the reconversion process; facilitate the fulfillment of

¹ White House, Press release (608), August 18, 1945.

relief and other essential export programs; and allocate scarce materials or facilities for the production of low-priced items essential to the continued success of the stabilization program.

The policies outlined by this Executive order are to be effected under the guidance and direction of the Director of War Mobilization and Reconversion. Apparently anticipating such an eventuality, the Director, on August 15, 1945, had submitted to the President the reconversion program outlined below.

Program of Office of War Mobilization and Reconversion

"The urgent need to increase peacetime production is the keystone of all the Government's economic policy and planning," according to the Director of War Mobilization and Reconversion.² The Director held that "only a peacetime production, vastly expanded over anything this or any nation has ever seen," will make possible the attainment of the following major economic objectives: (1) Jobs for all those willing and able to work; (2) a steadily rising standard of living; (3) stabilization of the economy to avoid disastrous inflation or deflation; and (4) increased opportunities for farmers and businessmen.

With the coming of peace, the report stated, the American people as individual customers—and not the Government—will determine what businessmen and farmers are to produce. Wartime controls are to be removed wherever such removal will help to expedite that production, but will be retained wherever necessary to prevent a chaotic condition of bottlenecks or a disruptive scramble for goods.

Subjects of paramount reconversion interest.—The report discussed six of the leading factors in reconversion from a wartime to a peacetime economy, as follows:

Military contracts.—All military contracts are being terminated immediately, except those required for experimental and development purposes and for the maintenance and supply of the armed forces. The War Department is taking immediate action to cut its procurement of aircraft, artillery, ammunition, and other weapons by 94 to 100 percent. The largest continuing item in Army procurement will be in food, and this will be cut as fast as demobilization will permit. Navy reductions will be smaller and more gradual.

Demobilization.—Demobilization from the armed services will return at least 7,000,000 men to civilian life within the next year. At present, the Army is demobilizing at the rate of 170,000 per month. Within several months, the rate is expected to reach 500,000. The Army will demobilize on the same basis as formerly, releasing first those men with longest combat service and greatest number of dependents. The Navy plans to demobilize some of its personnel almost immediately. Both the Army and the Navy will continue to draft, on a reduced basis, some men to replace those of longer service. The Congress will decide on peacetime draft policies when the "cessation of hostilities" is declared.

Unemployment and manpower.—All controls over manpower are to be removed and the compulsory 48-hour week ended at once. The U. S. Employment Service will devote its best efforts to finding jobs for displaced workers and veterans and assisting claimants for unemployment compensation.

Unemployment currently is estimated at 1,100,000 persons. This represents the total without jobs on a given day, many of them being persons "between jobs." This total of unemployment is expected to rise to 5,000,000 or more within 3 months; perhaps to 8,000,000 before next spring, as those released from war jobs are joined by large numbers of men discharged from the armed services. Many of the unemployed will find new jobs within a few weeks—others will face extended periods without jobs.

² In his report, *From War to Peace: A Challenge*, submitted to the President, August 15, 1945. (Mimeographed.)

Production and distribution controls.—Many production and distribution controls will be removed at once. Only those will remain in force which are essential for expediting production, breaking bottlenecks, preventing inventory hoarding, and assuring economic stabilization. Rationing of certain scarce commodities must continue for a while. Restrictions on others will be lifted immediately. Transportation regulations must continue temporarily. How long controls are continued depends on how much and how quickly business can expand its output.

Price and wage controls.—For some period of time the dangers of inflation will be with us. There will be more demand for many kinds of goods and services than business can supply. As long as some materials and products remain seriously short, price ceilings on those materials and products must be maintained as a barrier against inflation. Rent controls also must continue. While price and rent ceilings remain in force, wage stabilization must be continued. Wherever price ceilings will not be endangered, collective bargaining will be restored. Wage and price increases will be allowed to correct substandard pay scales, to relieve hardships of individual workers and enterprises, and, where necessary, to stimulate increased production.

Legislative program.—In order to speed reconversion and to mitigate the extremes of hardship during the transition period, a number of legislative enactments are needed. These include increased unemployment-compensation benefits; revision of the Fair Labor Standards Act to increase minimum wages; tax program to stimulate production and to maintain markets; appropriations for the planning and execution of public works; adequate appropriations for the U. S. Employment Service and retention of this service under Federal control during the interim of transition.

Policies of Other Federal Agencies

Acting in accordance with Executive Order No. 9599, and with the principles stated by the Director of War Mobilization and Reconversion, the various Federal agencies made known their reconversion policies.

Wage and salary policies.—Both the National War Labor Board and the Salary Stabilization Unit of the Bureau of Internal Revenue issued directives governing wages and salaries in the transition period. Through General Order No. 40,³ effective August 20, 1945, the Board stated that employers alone, or employers jointly with unions if there is a recognized bargaining agent, would be allowed to make any wage or salary increases desired, without approval of the Board, provided that they did not affect price ceilings or costs to the Government.

The WLB made "a 90-day exception" to the authority to grant such increases, in the case of the building and construction industry. In that industry, applications for wage increases would continue to be submitted to the Wage Adjustment Board, regardless of whether OPA price ceilings or costs to the Government were involved. When price ceilings or Government costs were affected, the wage or salary increases would be effective only if approved by the War Labor Board and by the Director of Economic Stabilization. At the same time, no wage or salary decreases could be put into effect by any employer without prior approval of the War Labor Board. The Board itself could approve such reductions below the highest rates paid between January 1 and September 15, 1942, only when necessary "to correct gross inequities and also aid in the effective prosecution of the war."

The Commissioner of Internal Revenue modified his salary stabilization rules on August 22, 1945, to permit any employer to increase the salary of any employee, provided that such increase would not cause

³ National War Labor Board, Press release (B-2200), August 20, 1945; Fact sheet, August 23, 1945.

an increase in, or be used to prevent a decrease in, price ceilings, and that it would not bring about an increase in costs to the Government.⁴ Otherwise, the employer was directed to apply for approval in the usual manner, to a regional office of the Salary Stabilization Unit of the Bureau of Internal Revenue. This policy applies to salaries, bonuses, commissions, fees, incentive pay, and all other types of compensation. The Commissioner has authority over all salaries of \$5,000 or more per year, and also any salaries of less than \$5,000 when paid to administrative, professional, or executive employees who are not represented by labor organizations.

*Settlement of labor-management disputes.*⁵—The Secretary of Labor and the Chairman of the National War Labor Board worked out a procedure for settlement of labor-management disputes, to be in effect until the Board completes its emergency functions and a permanent basis for adjustment of disputes is established. The Board instructed its regional boards to redouble their efforts to decide speedily the approximately 3,000 pending dispute cases which had been certified by the Department of Labor prior to August 18. The parties involved were to be requested to try to settle their cases by direct negotiations. In new dispute cases, the regional boards and the Conciliation Service of the Department of Labor were to seek primarily to restore collective bargaining, and every effort was to be made to settle these disputes without recourse to further governmental procedures. If the parties involved could not negotiate a settlement, they were to be urged to refer the dispute to arbitration if the dispute lent itself to this method of disposition. If other measures should fail, the parties to a dispute should, if they desired further governmental participation in their settlement, agree to submit it to the War Labor Board for final and binding determination. When the parties agreed in advance to accept the Board's decision in the case, the Board would accept certification automatically from the Department of Labor. When the Secretary of Labor found it necessary to certify a case in which the parties had failed to agree to accept the Board's decision, the Board would work out a procedure adapted to settlement of that particular dispute.

*Manpower reconversion program.*⁶—The War Manpower Commission on August 14 announced adoption of a 7-point reconversion program looking toward stimulation of reconversion activities, the speedy reemployment of displaced workers, and restoration of a free labor market.

1. All manpower controls are to be lifted immediately, and in their place voluntary community action to speed reconversion will be substituted.
2. The number of displaced workers and returning veterans in each community will be determined in cooperation with local management-labor groups, and action will be taken by the War Manpower Commission and local U. S. Employment Service offices, in cooperation with the communities, to speed reconversion and reemployment.
3. Labor will be channeled by voluntary methods into civilian industries, especially into industries which may become reconversion bottlenecks and thus delay mass reemployment throughout the country as a whole.
4. The full facilities of the U. S. Employment Service will again be made available to all employers, including those for whom services were restricted because of war requirements.
5. Expanded services will be rendered to veterans to assist them in their readjustment to civilian employment.

⁴ Treasury Department, Bureau of Internal Revenue, Press release (No. V-36), August 22, 1945.

⁵ National War Labor Board, Press release (B-2210), August 29, 1945.

⁶ War Manpower Commission, Press release, August 14, 1945.

6. Increased emphasis will be given to job counseling and other personalized services to assist job seekers to adapt their wartime experience to peacetime job opportunities.

7. Displaced war workers, many of whom have migrated during the war, will be assisted in finding employment in other communities where civilian production has expanded.

USES offices will continue to give preferential treatment to all reconversion activities. Community manpower requirements for reconversion will be determined through the cooperation of all local groups and WMC-USES officials have been instructed to call meetings of community leaders and labor-management committees to determine these requirements immediately.

Local surveys of employers' needs, which have been limited to war industries in the past, will be redirected to civilian industries in every community, and the blueprint of community job availability thus obtained will be furnished local leaders, WMC said. Efforts will then be made to see that essential civilian industries and industries important to the national reconversion program as a whole are fully manned. This community employment planning will be based entirely on voluntary activity in order to speed reconversion and to assure maximum future employment. Field instructions issued to Regional Manpower Directors call for immediate steps to be taken to provide the following services: "Preferential service to civilian activities of key importance to reconversion nationally and locally; extension of services to all employers; extension of counselling services to all veterans and other job seekers who need such assistance; making available to all employers, labor organizations, and community groups concerned with production and employment planning, current information concerning the present and prospective labor-market situation in the area, and in other areas as necessary; provision of technical services to all individuals and organizations dealing with employment counselling or the hiring and placing of workers, to the end that information and techniques available to the employment service may have the widest possible use in improving counselling and placement activities wherever performed."

*Industrial reconversion plan.*⁷—The War Production Board's plan for reconversion of industry to civilian production calls for revocation of all possible controls. Only those controls will be retained which may be necessary to prevent industrial dislocation and bottlenecks, which might prove harmful to reemployment, and to assure stabilization. The main points of the plan are as follows:

1. All but a handful of orders will be cancelled within a few weeks.
2. Release of a huge industrial building program through a plan to relax industrial construction controls. This plan, designed to absorb the manpower and materials freed by military cut-backs is already in effect and additional relaxation will be considered within 30 days.
3. Remove ceilings on production of automobiles and other consumer durable goods. These important industries may now move forward with all-out production programs.
4. Orders controlling materials that are still in short supply, tin, crude rubber, textiles, lumber, etc., will be retained until shortages ease or until there is no longer any danger of a scramble.
5. Inventory controls will be retained until the danger of hoarding, preemptive buying, and stockpiling by the few at the expense of the many are over.
6. Preferential protection of small business (\$50,000 or less per quarter) including the rating system, will remain in effect for the time being until the effects of cut-backs can be appraised and it is safe to remove them.
7. WPB will retain its powers for breaking bottlenecks or giving protection where needed to military or highly essential civilian or export needs. These powers will be used only where necessary, and business should not rely on priorities help for conducting its normal activities.
8. In line with the President's letter of August 9, 1945, to the WPB Chairman, the Board will take vigorous action to expand production of materials, which are in short supply, to meet civilian demands, and will work with OPA, WMC, and other agencies whose operations are of equal importance to the rapid expansion of such production.

⁷ War Production Board, Press release (WPB 8868), August 16, 1945.

*Reconversion price policies.*⁸—The Office of Price Administration established administrative machinery for allowing industry-wide increases to reconverting manufacturers. Because orders issued under this program will require reasonable absorption by the distributive trades, OPA said that retail prices for reconversion goods will be at or near 1942 levels. The price agency will issue a series of orders containing "price increase factors," one for each reconverting industry producing items now governed by the consumer durable-goods regulation. According to the OPA, each factor will be a measure of the percentage increase over 1941 prices that will be allowed to manufacturers in these industries. In some exceptional cases, individual computation of increase factors will be allowed all firms in an industry. At the same time, the OPA stated, it will issue dealer pricing instructions under which all or most of those increases can generally be absorbed before the goods are offered for sale to consumers.

Each price-increase factor announced is to represent the percentage amount by which average 1941 prices in an industry would have to be increased in order to (1) reimburse the average manufacturer for materials-cost increases since 1941, and increases in basic wage rates of factory workers, and (2) permit a margin of profit equal to the industry's average margin over costs during the years 1936-39. In general, distributor trades are to be permitted to pass some of the increases along only if complete absorption would mean a total decrease in earnings below the trade's dollar earnings in the years 1936-39, or if ceiling prices for a particular commodity fail to cover out-of-pocket costs to the handlers.

*Pricing methods for new small-volume manufacturers.*⁹—Small manufacturers of most consumer goods other than clothing, the Office of Price Administration announced on August 27, 1945, will be permitted the option of in-line prices or temporary ceiling prices, calculated on the basis of current costs plus a specified profit margin.

If a new manufacturer elects the latter method, he will submit estimates of total current costs, including materials, labor, other factory expenses, and selling and administrative costs. To the sum of these, the applicant will add a profit factor to be supplied by OPA. The factor will represent in each case the full average peacetime profit margin of the industry that the applicant is entering. When the new manufacturer has had 3 months' operating experience, he will recompute his ceiling prices, using actual costs incurred during those months in place of the estimates used in the original calculation. The new proposed ceiling prices must be filed within 30 days following completion of 3 months' operation. The original ceiling prices automatically expire at the end of 5 months from the beginning of production. If a new small-volume manufacturer has had ceilings established since September 1, 1944, but the ceilings have proved unsatisfactory, he may use this cost method to recalculate existing ceilings. In this case he would use his latest cost figures if he has been in production for 3 months or more. The second alternative open to such manufacturers is to select a product comparable to the one they expect to produce, and adopt the ceiling price now in effect for the comparable article. Appropriate additions or subtractions from the ceiling price are to be made for material differences in cost of production between the two articles.

⁸ Office of Price Administration, Press release (OPA-5842), August 23, 1945.

⁹ Idem, Press release (OPA-5850), August 27, 1945.

To qualify as a new manufacturer, an applicant must show either (1) that he is just starting business, or that he started it after September 1, 1944 (date of the first issuance of the War Production Board's "spot authorization" program), or (2) that the entire output of any business he engaged in before September 1, 1944, was on contract or subcontract with Government war procurement agencies or Allied Governments. To qualify as a small-volume manufacturer, the applicant must show that both the following conditions exist: (1) In the 6 months before reporting his new ceiling prices under this order, his total net sales to civilians amounted to \$100,000 or less, and (2) in the 6 months after reporting his ceilings, he cannot reasonably expect that his sales to civilians will amount to more than \$100,000.



Price Control Since the General Maximum Price Regulation¹

Summary

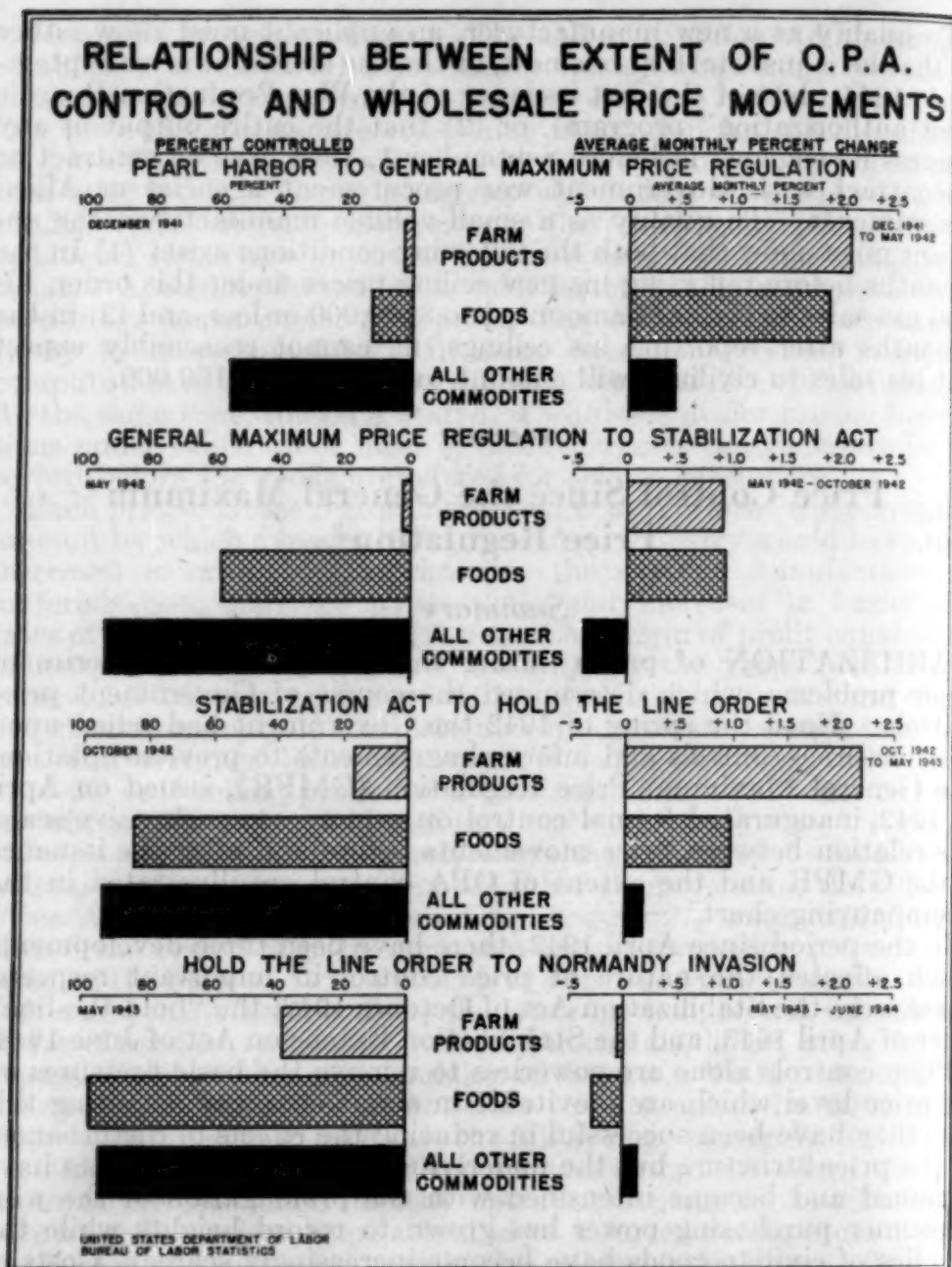
STABILIZATION of prices during the war presented a series of major problems, which determined the course of Government price controls. Until the spring of 1942 the Government had relied upon selective price controls and informal agreements to prevent inflation. The General Maximum Price Regulation (GMPR), issued on April 28, 1942, inaugurated formal control on a more comprehensive scale. The relation between price movements before and after the issuance of the GMPR and the extent of OPA control are illustrated in the accompanying chart.

In the period since April 1942, there have been three developments which affected the nature of price control in important respects. These were the Stabilization Act of October 1942, the "hold-the-line" order of April 1943, and the Stabilization Extension Act of June 1944.

Price controls alone are powerless to remove the basic pressures on the price level which are inevitable in a war economy. During this war, they have been successful in reducing the effects of disturbances on the price structure but the underlying inflationary influences have remained and become intensified with the prolongation of the war. Consumer purchasing power has grown to record heights while the supplies of civilian goods have become increasingly scarce. Costs of production have mounted steadily. Enforcement of price regulations has been difficult.

During the brief period between May 1942 and October 1942 OPA actions were directed chiefly toward adjustment and refinement of the general price freeze instituted by GMPR. Numerous problems arose during the early operations under the regulation, many of which were administrative difficulties caused by the magnitude of the problem, and others more fundamental limitations of the freeze technique. This period was not only one in which the pace of the price advance was greatly reduced but also one during which the limits of OPA's authority to control prices became more apparent. Although the prices of controlled commodities remained virtually stable and the rise in

¹ Prepared in the Bureau's General Price Research Division by Doris P. Rothwell. For discussion of early controls, see *Progress of Price Regulation to September 1942*, by Saul Nelson, in *Monthly Labor Review*, October 1942.



the average price level was slight, prices of uncontrolled commodities continued to advance. Authority to control prices of farm products and wages clearly was needed, as well as further measures to curb rising purchasing power.

The October 1942 Stabilization Act provided the authority for control of both wages and farm products. Price controls were extended on a broad scale between October 1942 and April 1943. In addition, as experience showed more clearly the limitations of the General Maximum Price Regulation, more suitable specialized measures were inaugurated. The general regulation, necessary as it was in the spring of 1942, was distinctly an emergency measure and not adapted to permanent price control. Realization of this fact led to the widespread establishment of specific dollars-and-cents ceilings,

considered by OPA the most desirable type of control wherever feasible.

Despite the extension of controls in October 1942, prices at all levels of distribution continued to advance, and the rise between February and April 1943 was sharp. This led to the issuance of the "hold-the-line" order by President Roosevelt, directing the stabilization of the cost of living at April 1943 levels. An active program was undertaken by OPA shortly thereafter to accomplish this objective. The sharp price rise during March and April continued, rising to a peak in May 1943 when the effects of the April order began to appear. As a result of the order, the coverage of price controls was broadened; dollars-and-cents pricing was widely extended; prices of some major foods were "rolled back" by the use of subsidies; and more vigorous enforcement was attempted. Some upward adjustments of ceilings were necessary, however, particularly for industrial goods.

In the spring of 1944, protracted hearings were held on the extension of the price-control law, which was to expire on June 30, 1944. The Stabilization Extension Act, finally passed on that date, continued the law in all important respects in its previous form. There were, however, important qualifications with regard to cotton and cotton textiles in the Bankhead amendment to the act, which necessitated upward adjustment of ceilings on cotton textiles to reflect full parity to the cotton growers.

The most serious threat to stabilization in the period between June 1944 and April 1945 was the steady rise in average prices of apparel, owing largely to the disappearance of lower price lines. Major attention was given by OPA and WPB during the first quarter of 1945 to arresting this advance and to rolling back clothing prices 6 to 7 percent. WPB directed the channeling of fabrics to production of low-cost essential garments by means of priorities, while OPA, under the Maximum Average Price Regulation (issued in April 1945 for clothing and shortly thereafter for rayon and wool goods), ordered the scheduling of production at the same average price as in specified base periods. During the summer of 1945, however, these orders were relaxed in important respects because of operating difficulties.

During the first quarter of 1945, Maximum Price Regulation No. 580 replaced GMPR and other regulations at retail for clothing, textiles, shoes, furniture, and housefurnishings. It froze mark-ups at the level existing on March 19, 1945. The use of the current mark-up of an individual store was a new technique of OPA price control.

The problem of pricing "reconversion goods"—civilian products, such as refrigerators and automobiles, which had been out of production—first became important in the spring of 1945 as prospects grew for some relaxation of limitation orders on raw materials. The OPA general policy, announced in May 1945, was the maintenance of 1942 price levels for such goods, but numerous requests for ceiling relief were received from industries preparing to reconvert. Up to August 1945, OPA undertook detailed industry studies to determine permissible adjustments. The sudden end of the war with Japan and the rapid relaxation of WPB controls made decisions of this sort imperative. The outlook for price control is uncertain, but the general objective of Government policy is to stabilize prices throughout the reconversion and early postwar periods.

Background and Provisions of GMPR

The inflationary forces which were set in motion in August 1939 when Germany invaded Poland gained momentum in the United States with the initiation of the defense program in June 1940. Until the summer of 1941, price advances were confined to a relatively few materials, needed directly for rearmament. Selective price controls and informal agreements with industry were reasonably successful in preventing serious price rises. Primarily as a result of large Government expenditures for war, however, consumer incomes had mounted rapidly. By the summer of 1941 the pressures of heavy consumer demand and speculative buying as well as rising labor costs were beginning to be felt. Price increases became sharper and more widespread.

More forceful price control, necessitated by our active participation in the war, was made possible by passage of the Emergency Price Control Act on January 30, 1942. The General Maximum Price Regulation, which marked the end of selective price controls, was issued on April 28, 1942, under the authority of that act. Together with a companion order on rents, it gave force to one of the points in President Roosevelt's 7-point anti-inflation program,² as outlined in his message to Congress on April 27, 1942.

This regulation, an emergency measure to prevent further serious price increases, froze prices as of March 1942 at all levels of distribution. Briefly, the regulation set the seller's price ceiling at the highest price charged for the same commodity or service in March 1942 to the same class of consumer. Special methods were provided for pricing commodities not sold in the base period. The regulation became effective on May 11, 1942, for manufacturers and wholesalers, on May 18, 1942, for retailers, and on July 1, 1942, for services. Its terms were not applicable to any article covered by other regulations.

Rent Control

Initial steps had been taken under the rent-control provisions of the Emergency Price Control Act even before the issuance of GMPR. Twenty-one areas had been designated as "defense-rental areas" subject to potential Federal control. With the designation of 302 additional defense-rental areas on April 28, 1942, control was extended to include most of the urban and semirural population of the United States. Following the principle of the "fair rent date," already in general use by voluntary fair-rent committees, rents were frozen at specified maximum rent dates. In four-fifths of the areas under control by April 28, 1942, rents were frozen as of March 1, 1942; in other areas they were frozen at 1941 maximum rent dates.

Limitations in Coverage

Although the GMPR had been planned as "an absolute ceiling over virtually everything that Americans eat, wear, and use,"³ certain exceptions, which seriously limited the regulation's effectiveness, were

² The seven points were as follows: (1) Heavy taxation of excessive profits; (2) an over-all ceiling on prices paid by manufacturers, wholesalers, retailers, and consumers, and on rents in areas affected by war industries; (3) stabilization of wages; (4) stabilization of farm prices and substitution of parity for the 110 percent of parity formula; (5) increased purchases of war bonds and reduced spending; (6) rationing of essential and scarce commodities, and (7) discouragement of credit and installment buying and encouragement of debt repayment.

³ Office of Price Administration, First Quarterly Report for the Period Ended April 30, 1942.

enforced by the terms of the Emergency Price Control Act and others were made for administrative or practical reasons. Of especial significance was the exception of unprocessed farm products and certain foods. Section 3 of the Emergency Price Control Act prohibited ceilings on agricultural commodities below the highest of the following levels as determined by the Secretary of Agriculture: (1) 110 per centum of the parity price; (2) the market price on October 1, 1941; (3) the market price on December 15, 1941; or (4) the average price during the period July 1, 1919, to June 30, 1929. It also forbade establishment of ceilings on products processed from agricultural commodities below prices sufficient to reflect the highest of these four levels at the farm.

Less obvious but possibly of equal importance was the provision in the Emergency Price Control Act which prohibited the regulation of wages. Until October 1942 increases in basic wage rates were granted voluntarily in many industries. At first they had been confined to war industries, whose products were largely exempt from OPA control, and to industries in which higher wages could be absorbed out of higher profits. Gradually demands for wage increases spread to industries for which profits were insufficient to absorb them. After October 1942, earnings continued to advance as the result of increases in basic rates approved by the National War Labor Board for some industries, longer hours of work with payment of overtime rates, shifts to higher-grade employment, and other factors. By the end of 1943 average hourly earnings in manufacturing industries had risen to 99.5 cents, 19 percent above May 1942 and 11 percent above October 1942. Since mid-1943 higher labor costs have necessitated a number of important upward adjustments of ceilings. Among these have been coal and coke, lumber, newsprint, and wood pulp. Increased earnings of labor also have contributed to the rise of purchasing power which has exerted continued pressure on the price level.

Other exceptions, necessitated by the definition of "commodity" in the act⁴ were advertising, newspapers, books, magazines, motion pictures, common carrier and public utility rates, insurance, and real estate. Commodities exempted for practical or administrative reasons included highly seasonal articles (such as fresh fish) and objects of art, for which it would be difficult to determine fair prices; primary raw materials, such as timber, prices of which were controlled indirectly by ceilings at later stages of production; and commodities covered by other OPA regulations.

Although it was hoped, despite the recommendations of the Army and the Navy when GMPR was issued, that it would be possible to exercise price control over military goods, Supplementary Regulation No. 4, issued May 12, 1942, exempted "developmental" and "secret" contracts with the Government, "emergency purchases," and sales to the Government of a comprehensive list of finished goods, including combat items, some foods, and military clothing.

Difficulties of Administration

The practical problems of administration and enforcement under GMPR were numerous. There were not only the problems of educating a large number of sellers in the regulation, the difficulty of de-

⁴ Sec. 302 (c), Emergency Price Control Act of 1942 (Public, No. 421, 77th Cong., 2d Sess.).

termining legitimate ceilings, and the complexity and ambiguity of some of the provisions, but also the latitude for individual interpretation, the need for thousands of individual adjustments, the pricing of style and custom-built merchandise and new commodities, and seasonal commodities or others not sold in the base period.

The educational problem posed by GMPR was formidable even for manufacturers and wholesalers but particularly so for retail stores, many of which are one-man establishments. Many small stores had only fragmentary records of their March 1942 base prices, and adequate explanation of the provisions of GMPR proved to be a mammoth undertaking.

GMPR was inappropriate for pricing seasonal commodities such as agricultural insecticides or summer wearing apparel. Provision had to be made for adjusting March base prices for normal seasonal fluctuations. Commodities not sold in March 1942 presented another problem. Because of style changes, for example, many articles of clothing to be priced under GMPR were not identical to those sold in March 1942 and special formulas had to be devised for pricing such items.

GMPR ceilings were indefinite and varied between sellers. They represented for each seller, the highest price charged during March 1942, a month and a half or more prior to the effective date of the regulation. Ceilings were not definite prices readily apparent to purchasers or inspectors nor were they alike for all sellers, even for identical commodities. Moreover they might represent the price of a single sale during March 1942. In addition many of the pricing rules for goods not sold in the base period could be interpreted in several ways. In actual practice, for example, the seller was given a choice of several formulas for pricing style merchandise or articles not sold in the base period. Maximum prices were determined by one of at least three methods involving "similar" commodities, "comparable" commodities, and "most closely competitive seller of the same class." These concepts were subject to individual interpretation.

Probably on no other count has the criticism of GMPR been so severe or so bitter as on the ground of the complexity and confusion of its provisions. Even OPA officially attested to the complexity of GMPR, which arose from the desire for absolute equity. In November 1942, Price Administrator Leon Henderson outlined a "new offensive," the first tenet of which was the replacement of much of GMPR (and other regulations) by "simpler, more definite" ceilings.⁵

The size of OPA's staff, as well as the indefinite nature of legitimate GMPR ceilings, made enforcement of the regulation extremely difficult and no widespread attempt was made to compel rigid adherence. Early efforts were concentrated on stimulating voluntary compliance and prosecutions were instituted only against the most serious offenders, as examples to others.

Since considerable latitude remained for independent judgment, compliance rested largely upon the integrity of the seller. Under the pressure of scarcities and narrowed profit margins, such reliance often was inadequate, particularly for nonstandardized items.

⁵ Address by Leon Henderson, Administrator, Office of Price Administration, at Boston, November 19, 1942 (in *Journal of Commerce*, November 20, 1942).

Inequities of Price Relationships

In addition to administrative difficulties, there were two basic problems of the GMPR freeze. First, it froze those abnormal price relationships which existed at the time. Many sellers were caught with maximum prices out of line with those of competitors in the same community. Moreover, prices of many commodities, controlled before GMPR, were frozen at the levels of earlier periods and were out of line with March 1942 prices for commodities controlled by GMPR. The regulation, by freezing prices, also froze the relationships which existed between profit margins for different commodities of a given seller. Since these margins normally vary widely in both absolute and percentage terms there was a tendency, under the conditions of scarcity and heavy demands which developed, to concentrate production on those items which yielded the highest net return. As profit margins are normally greater on higher-priced goods, lower-priced lines and services in many cases were discontinued.

Secondly, a serious "distributive squeeze" developed. In a period of rising prices, such as prevailed in March 1942, retail prices often are based upon the lower costs of an earlier period when the articles were purchased, rather than upon replacement costs. This is the so-called "retail lag." Q. F. Walker, economist of R. H. Macy & Co., New York, estimated the lag for some retailers as high as 15 percent.⁶ The general ceiling, by freezing this lag, caused a reduction of margins and produced a "squeeze."⁷ In addition, costs of farm products and other uncontrolled commodities, as well as wages, continued their steady advance and further intensified the "squeeze."

Accomplishments of GMPR

GMPR was not devised to control the basic cause of inflation, namely, rising purchasing power bidding for a declining volume of goods and services. The Statement of Considerations accompanying GMPR recognized that "there can be no effective price control while at the same time there is so large an amount of excess purchasing power. . . . The universal price ceiling serves as the framework for other policies which will diminish the inflationary gap. It makes possible an effective war labor policy, more stringent income and excess profits taxes, and greatly enhanced savings. . . . Without the economic measures, the ceiling would in the long run become administratively unenforceable and socially harmful." Unfortunately the companion measures to GMPR were delayed and inadequate.

There can be little doubt, however, that despite tremendously expanded national income and greatly curtailed civilian production, the run-away inflation which threatened in the spring of 1942 was prevented. General opinion seems to agree, with OPA, that GMPR "did hold down prices,"⁸ and the movement of official price indexes lends strong support to this conclusion. The sharp rise of 1 percent per month in the Bureau of Labor Statistics index of consumers' prices during the 5 months following the attack on Pearl Harbor was

⁶ Journal of Commerce (New York), May 21, 1942.

⁷ The amount of the maximum potential squeeze on retailers in March 1942 was estimated by alternative methods at 617 million and 672 million dollars. See Price Control in Outline, by Don D. Humphrey, in American Economic Review, December 1942 (p. 751).

⁸ Office of Price Administration, One Year of Retail Price Control (Price Control Report No. 15).

reduced to 0.5 percent per month between May 1942 and December 1942. During the 19 months from May 1942 to December 1943, the consumers' price index rose only 7.2 percent, or 0.4 percent per month, compared to 15.1 percent, or 0.9 percent per month, from January 1941 to May 1942.⁹

Similarly, price increases at the primary-market level were smaller after GMPR than before. In the 6 months after GMPR, the BLS wholesale price index rose only 1½ percent, in contrast to 5.6 percent between December 1941 and May 1942. From May 1942 to December 1943 the index rose only 4½ percent compared with 22 percent between January 1941 and May 1942.

Comparison of the price movements of controlled and uncontrolled commodities after issuance of GMPR gives striking proof of the effectiveness of GMPR in preventing higher prices for *commodities subject to its control*. Between May 1942 and December 1942, excluding gas and electricity which are regulated by State or municipal agencies, the comprehensive wholesale price index rose 2.2 percent. On the basis of fixed-base constant composition index numbers, prices of commodities controlled by GMPR or earlier regulations increased only 0.3 percent, whereas prices of commodities not controlled as of the date of GMPR rose 8.1 percent during this period.

MAY 1942 TO OCTOBER 1942

During the first few months after issuance of the General Maximum Price Regulation, OPA concentrated on the refinement of the general freeze and on the issuance of specific regulations, more suitable than GMPR for control of individual commodities. By the end of July, 18 amendments and 14 supplementary regulations to GMPR had been issued, in addition to more than 60 orders authorizing adjustment of maximum prices under the regulation and a number of orders under supplementary regulations. All of these were designed to provide relief from the squeeze and from individual hardships or to provide special formulas for the pricing of seasonal or new commodities.

The individual regulations replacing GMPR followed one of three techniques—base-period freeze, cost-plus or formula, and dollars-and-cents ceiling—depending upon the specific problems and normal practices in the industries involved. Under the first method, as for GMPR, maximum prices were those charged in a specified base period. Under the second method, maximum prices were based on costs to the seller plus a specified mark-up. The third method, more widely used in later periods, established uniform prices for all sellers, expressed in specific dollars-and-cents terms. Dollars-and-cents ceilings represented the ultimate goal of OPA policy, but they were not always practicable and they required detailed and painstaking investigation, impossible in an emergency.

As indicated above, under the general ceiling the rate of increase in both wholesale and retail prices was sharply reduced. In the 4 months following May 1942, the index of consumers' prices for moderate-income families in large cities rose only 1.6 percent, an average

⁹ The rise in the index between January 1941 and December 1943 was 23.4 percent. A technical advisory committee, headed by Wesley C. Mitchell, appointed by William H. Davis, Chairman of the President's Committee to investigate the cost of living, reported in June 1944 that the index may have understated the actual rise in the cost of living during this period by 3 to 4 points, because of quality deterioration, disappearance of cheaper goods, decrease of special sales, and increases in under-reporting of prices actually charged, plus an additional one-half point if the index is to be used to measure changes in small cities as well as large cities.

monthly rate of 0.4 percent. The effect of GMPR on primary-market prices was equally impressive. Between May 1942 and September 1942 primary-market prices rose only 0.8 percent, or 0.2 percent per month.

Although the general price level had responded to control, the basic weaknesses in the program to stabilize the cost of living were clearly reflected in the price movements of uncontrolled commodities. The moderate average price advance which did occur was due largely to increases for uncontrolled items, chiefly farm products and foods such as fresh fruits and vegetables, fish, butter, and flour. Items controlled by GMPR were generally stable. In primary markets, all commodities other than farm products and foods actually declined between May and September, while average prices for farm products and foods advanced 3.3 and 3.5 percent, respectively. Similarly, cost-of-living items controlled by the GMPR were virtually unchanged, whereas uncontrolled items increased 5 percent on the average.¹⁰

It soon became evident that the inflationary spiral had been halted only temporarily. OPA's report of operations between May 1 and July 31, 1942, referred to the continued rise of wholesale prices and the cost of living and to "the basic weaknesses in the program to control prices," such as exemptions of agricultural products under the Emergency Price Control Act, failure to stabilize wages and incomes, and failure to institute adequate taxation, savings, and other fiscal programs to reduce consumers' purchasing power. OPA's third quarterly report stated:

In spite of the General Maximum Price Regulation, the outlook for inflation control at the close of the summer was very bleak. Although the prices brought under control by the GMPR were held firmly, the prices, which, by reason of the limitations of section 3 of the Emergency Price Control Act, could not be controlled continued to rise, indeed at an accelerating rate. . . . Only immediate stabilization could prevent a resumption of the wage-cost spiral, which had been temporarily halted by the GMPR in May.

In response to the President's message to Congress on September 7, which emphasized the continued threat of inflation, the Congress amended the Emergency Price Control Act on October 2, 1942, to permit both a broad extension of price control and the stabilization of wages. The amendment ordered the stabilization of prices, wages, and salaries affecting the cost of living at the level of September 15, 1942, insofar as practicable. The original provision in the Price Control Act, prohibiting ceilings on agricultural commodities below 110 percent of parity, was amended to permit the establishment of ceilings at parity or at the highest market price between January 1 and September 15, 1942, whichever was higher.

On October 3 the President created the Office of Economic Stabilization and gave specific directions for effectuating the purposes of the act.¹¹ Changes in basic wage rates were prohibited, except by approval of the National War Labor Board, and the Board was authorized to approve increases above the September 15 rates only to correct maladjustments, to eliminate substandards of living, to correct gross inequities, or to aid in the effective prosecution of the war. Subject to the parity provisions of the act, maximum prices were to be established at the level of September 15, 1942. The President ordered

¹⁰ Office of Price Administration, *The Relation between Price Movements and the Extent of Control* (Price Control Report No. 14).

¹¹ Executive Order No. 9250, October 3, 1942.

that in establishing such maximum prices appropriate deductions from parity price be made for parity payments and Government subsidies. He also specifically authorized the use of subsidies to insure maximum production, to maintain ceiling prices, or to prevent price rises.

OCTOBER 1942 TO APRIL 1943

Under the authority of the October 1942 Stabilization Act and the President's Executive order, price controls were extended immediately to many foods previously uncontrolled. On October 5 wholesale and retail prices of poultry, butter, cheese, evaporated milk, eggs, wheat flour, corn meal, onions, navy beans, and oranges were "frozen" at the level of September 28 to October 2, 1942. This increased from 64 percent to more than 90 percent the proportion of "cost of living" foods under OPA control, as shown in the following table:

Percent of Commodities and Services Included in Bureau of Labor Statistics Indexes Under OPA Control¹ on Specified Dates

Control status as of—	Wholesale price index			Consumers' price index	
	All commodities	Farm products	Foods	All items	Food
December 31, 1941.....	34.7	3.0	13.0	0	0
Mid-May 1942.....	76.3	3.0	58.8	47.6	61.2
Mid-October 1942.....	83.4	17.3	85.6	71.1	90.7
Mid-May 1943.....	86.8	38.3	97.5	77.9	96.3
June 30, 1944.....	93.4	80.0	99.7	² 82.1	100.0
Mid-August 1945.....	93.8	82.2	99.7	² 82.1	99.5

¹ Percentages for the wholesale price index are based upon the estimated average values of commodities in exchange at wholesale in 1940 and for the consumers' price index on the estimated retail value of goods and services in September 1939.

² Most of the elements of the consumers' price index not under OPA control by June 30, 1944, were services and utilities, but many of these, such as railroad, electric and gas rates—amounting to about 8 percent of the index—were under the control of other Federal or State agencies.

OPA's policy of replacing GMPR by individual regulations, which had been begun immediately after issuance of GMPR, was continued on a wide scale after October 1942. These regulations, which were carefully designed to meet the peculiar problems of an industry or particular commodity, resulted in part from the need for relieving hardships and inequities of the March freeze. OPA's Directory of Commodities and Services, as of March 15, 1943, shows the degree to which GMPR had at that time been superseded by specific regulations. Out of over 5,000 commodities and services listed, only 1,400 were governed entirely by GMPR as of March 15, 1943, 1,650 were controlled by specific regulations, and 2,000 partly by GMPR and partly by specific regulations. GMPR remained the major control in only a few sectors, notably chemicals and drugs and nonferrous metals. In some fields, such as machinery, petroleum, rubber, building materials, services, and consumer durable goods, only negligible proportions were governed solely by GMPR.

The policy of fixing specified dollars-and-cents ceiling prices was more generally followed than in the first few months after issuance of GMPR. Experience had proved these ceilings to be much simpler and more readily enforceable than base-period freezes or formula regulations. Moreover, they greatly reduced record keeping and reporting. Dollars-and-cents ceilings were part of a general program

of simplification of regulations which was initiated toward the end of 1942. Under this program, unnecessarily burdensome provisions were eliminated and careful attention was given to the phrasing of the regulations. Greater uniformity in pricing methods was sought. Requirements for reporting forms were greatly simplified.

Despite the extension of controls in October 1942, prices continued to advance. A substantial proportion of farm products and some foods and services remained uncontrolled. Rising prices of farm products in turn required some upward adjustment of ceilings for foods. Difficulties of enforcement increased with scarcities of goods, and violations of ceiling prices became more flagrant. Between October 1942 and May 1943, the cost of living essentials rose 5.1 percent on the average. Retail food prices increased 10.3 percent. In primary markets, farm products advanced 15 percent and foods 7 percent in price.

The pace of the advance between February and April 1943 was especially sharp. The index of consumers' prices for a moderate-income family increased 2.6 percent and foods 5.2 percent. This rapid increase led to the issuance of the President's "hold-the-line" order,¹² which directed OPA and other Government agencies to permit no further increases in prices or wages which would contribute to a further rise in the cost of living. The order also extended price controls to farm products affecting the cost of living.

APRIL 1943 TO JUNE 1944

The hold-the-line order was of major importance in OPA policy during the period between April 1943 and June 1944. Until the pressure of rising costs became too severe, it enabled OPA to withstand the continuing demands for upward adjustments of ceilings. Such adjustments in ceilings as were made contained the phrase "this change will not affect the cost of living."

Shortly after the issuance of the hold-the-line order, OPA initiated an action to implement the terms of the order with respect to the cost of living. The program included extension of price controls, continuance and expansion of dollars-and-cents pricing, reduction of prices of certain major foods, and more vigorous enforcement.

Controls were extended both to products formerly exempt and to levels of distribution previously uncontrolled. Of immediate concern were fresh fruits and vegetables, fresh fish, and other farm commodities. Among farm products and foods brought under control during the last half of 1943 and the first half of 1944 were fresh fish, certain fresh fruits and vegetables, live hogs, most grains, hay, and corn products used for livestock feed. Control also was extended to country shippers, importers, and farmers on some products, while another important step was the extension of control over restaurant prices on a regional basis by freezes at the level of April 4-10, 1943. Prices for standing timber were brought under control in some areas. During the third quarter of 1943 a general regulation was issued to control prices of a wide variety of used goods.

The policy of providing dollars-and-cents ceilings was given major impetus by the statement of the Director of Economic Stabilization, which accompanied the hold-the-line order, that such ceilings would shortly be issued for many commodities. During May and June

¹² Executive Order No. 9328, April 8, 1943.

1943 alone, 67 regulations were issued setting specific dollars-and-cents ceilings which were uniform throughout the Nation or for broad geographical areas. In addition to these, early in May 1943 a "community ceiling" program was inaugurated to provide uniform dollars-and-cents ceilings for all sellers in a community. Ceilings were calculated by regional and district OPA offices, from cost data supplied by local wholesalers and merchants, on the basis of allowable wholesale and retail mark-ups in existing food regulations. By the end of the year community price lists were on display in about 94 percent of the 600,000 retail food outlets in the country.

The community ceiling program and certain other developments necessitated the delegation of greater authority to regional and district OPA offices. Because of wide variations in costs and brands in different sections of the country, it was found most practicable to determine and adjust these ceilings in the field rather than in Washington. Field offices also were important in the pricing of fresh vegetables and in the establishment of control over restaurant prices. Later the policy of decentralization was used in area pricing of solid fuels and petroleum.

An important part of OPA's drive to obtain better compliance with regulations was the price-panel program, expanded in conjunction with the community ceilings. Organized under the local War Price and Rationing Boards, the main function of the price panels was educational—to distribute and explain regulations to local merchants. Later the panels were also active in following up consumer complaints and assisting in compliance surveys. By the end of 1943 price panels had been organized in most of the 5,500 War Price and Rationing Boards in the country.

Following the hold-the-line order, OPA undertook not only to hold prices at current levels but also to reduce the cost of living to the level of September 1942, the "benchmark" of the Stabilization Act. Because food prices were chiefly responsible for the 6-percent rise in the consumers' price index from September 1942 to May 1943, a program was initiated to reduce the prices of fresh fruits and vegetables, meat, and butter. For example, cabbage and lettuce prices were reduced 50 percent and 25 percent, respectively, in July. In the first quarter of 1944 a new regulation for citrus fruits raised returns to growers but lowered prices to consumers by reducing wholesale mark-ups. For most foods, however, reduction of retail ceilings would have reduced margins below reasonable levels. To meet this dilemma, as in Great Britain and Canada, subsidies were adopted on a wide scale either to maintain current prices or actually to reduce them. The first of the subsidy roll-backs, announced on May 7 to be effective in early June, was expected to reduce retail prices of meat and butter 10 percent. Meat subsidies, paid by the Defense Supplies Corporation to slaughterers, amounted to about 2 cents per pound on dressed carcasses. The butter subsidy, paid by the Defense Supplies Corporation to creameries, amounted to 5 cents per pound. Subsidy programs initiated later included peanut butter, potatoes, apples and onions, dairy feed, canning fruits and vegetables, cheddar cheese, flour, truck crops, and sugar beets.

Toward the end of 1943, despite the hold-the-line order, the pressures on ceilings began to force some upward adjustments of maximum prices. Increases were approved only if intensive study of cost-of-

production data disclosed undue hardship. Frequently price increases were not granted to a whole industry but were limited to companies actually in need of relief.

The pressure of rising costs was particularly strong in the field of industrial materials. Higher ceilings were permitted for lumber, coal, cement, brick and tile, wood pulp and newsprint, petroleum, and bronze ingots. In some cases increases at primary levels were not reflected in increases to the consumer, either because the higher prices were covered by subsidies or because they were absorbed at later stages of distribution. In the case of petroleum, a subsidy was inaugurated to cover high-cost output of stripper oil wells, so that the higher ceilings for crude oil were not passed on in higher costs to consumers. In other cases, notably coal, prices to consumers were increased. Some increases were required by the parity provisions of the law. Thus, late in 1943, the ceiling price of corn at Chicago was raised from \$1.07 to \$1.16 a bushel, to reflect parity to the grower. The increases for lumber were necessary to expand production in the face of a serious shortage of labor to meet the tremendous war needs. Increases for coal were the direct result of wage adjustments allowed by the National War Labor Board.

As a result of the actions taken under the hold-the-line directive, there was little net change in the cost of living between May 1943, the peak of the price rise, and June 1944. The average rise was only 0.2 percent. A serious threat to the stabilization policy was apparent, however, in price movements for clothing and housefurnishings, average prices of which rose 8 and 11 percent, respectively. Miscellaneous goods and services increased 5½ percent in price; and fuel, electricity, and ice, 2 percent. Rents were virtually unchanged, while foods declined over 5 percent. In primary markets, the average rise was only 0.2 percent. Of particular significance was the advance in primary-market prices of industrial goods. Prices of commodities other than farm products and foods, which had been virtually stabilized by the General Maximum Price Regulation, began to increase early in 1943 and by June 1944 had advanced nearly 3 percent above the December 1942 level.

During the second quarter of 1944, OPA's policies and procedures were the subject of extended investigation before the Banking and Currency Committees of both the Senate and House of Representatives, which were considering the extension of the Stabilization Act of 1942. Except for the special provisions regarding cotton and cotton textiles, no significant changes in the law were made by the passage of the Stabilization Extension Act on June 30, 1944.

JUNE 1944 TO AUGUST 1945

During the period between June 1944 and August 1945, OPA was concerned with a number of important problems, including the adjustments required by the Stabilization Extension Act, the threat to stabilization in rising prices of clothing, adjustments in ceilings to meet higher costs, and "reconversion" pricing of consumer goods again being produced. The general program of replacing GMPR by specialized regulations and of establishing dollars-and-cents ceilings was continued.

The most important changes necessitated by the new law were in the field of textiles and apparel. The Bankhead amendment to the act specified that individual ceilings for all major items made from cotton or cotton yarn must reflect parity to the cotton grower. The list of cotton-textile items for which ceilings would have to be raised to comply with this requirement was announced by OPA on July 3. It included most combed and carded cotton yarns, major types of sheets and pillowcases, denims, 3.60 yard sanforized chambray, most combed yarn fabrics, and knit cotton heavy-weight underwear. Under "adjustable pricing," permitted for these products, effective June 30, the buyer and seller could agree that, in the event of a subsequent increase in ceiling, the price for deliveries made in the interim might be adjusted retroactively to the new ceiling. By October 1944, increased ceilings had been permitted for fabrics which accounted for over half of the total cotton consumption. During the third quarter, as the result of such increases, average primary-market prices of cotton goods rose 3 percent, of hosiery and underwear 1 percent, and of other textile products 0.4 percent. Further increases were allowed in later months.

The Stabilization Extension Act of 1944 also required the elimination of the "highest price line" limitation at retail. Under the limitation which had applied to women's outerwear, fur garments, men's tailored clothing, and certain seasonal wear, goods could not be offered in a higher price line than the highest price line offered in the base period.

Rising average prices of clothing, rather than of food, had become the most serious problem of stabilization even before June 1944 and first steps had already been taken to restore low-priced goods to civilian markets. In November 1943 the Director of Economic Stabilization had issued a directive jointly to the War Production Board and the Office of Price Administration, calling for adequate production of essential civilian clothing; with particular emphasis on low-cost goods. The War Production Board was given the responsibility for formulating the plans, including the authority to recommend price increases to OPA if they were necessary to stimulate production. First actions of this sort were taken for men's cotton shirts and shorts and women's cotton house dresses and cotton slips in early 1944.

After June 1944 the problem was further complicated by the ceiling increases for cottons, and by the shrinkage of supplies of textiles. Despite expansion of the WPB-OPA programs, the cost of clothing continued to advance as a result of the persistent disappearance of low-cost articles. Between June 1944 and the end of the year, average retail costs of clothing rose 3½ percent. In January 1945 a comprehensive joint program was announced by WPB and OPA to restore more lower-priced textiles to the civilian market and to reduce retail clothing prices 6 to 7 percent. A WPB order, effective May 1, 1945, granted manufacturers of essential civilian garments and fabrics selling at or below certain specified prices priority assistance in obtaining the necessary fabrics, and reserved 70 to 80 percent of available cotton, rayon, and wool materials, after military needs were satisfied, for such low-priced goods. The major OPA action in connection with the program was the issuance of the Maximum Average Price Regulation, popularly called MAP. The regulation required each clothing manufacturer to distribute his quarterly production of prac-

tically all items of men's, women's, and children's apparel in all price ranges so as not to exceed his average 1943 price. The order was later extended to rayon and woolen mills, and further extension was contemplated. Another action required the preticketing with retail ceilings of most cotton garments by the manufacturer.

During the summer of 1945, these orders were modified in important respects. The rayon MAP was amended to allow increases up to 10 percent in the maximum average price received during the first half of 1943. The base period for the wool MAP was changed from 1943 to 96 percent of the weighted average price in 1944, and woolen-goods manufacturers were permitted to divide fabrics into categories with separate maximum average prices. Moreover, temporary increases in maximum prices of woolen goods were permitted for the third and fourth quarters of 1945. Adjustable pricing, under which sellers may contract to collect at a later date any price increases eventually ordered by OPA, was permitted on cotton textiles, pending complete study, as a result of higher wages authorized by the National War Labor Board for textile workers in northern and southern mills. Increases in retail ceiling prices for preticketed cotton garments also were permitted.

Almost simultaneously with the issuance of MAP, OPA tightened its retail price controls by issuing Maximum Price Regulation No. 580, to replace the General Maximum Price Regulation and other regulations at retail for clothing, textiles, shoes, furniture, and housefurnishings. This action, described by the Price Administrator as "one of the most important events in retail price control since May 1942," was taken after more than a year of study during which a number of other proposals for revision of the General Maximum Price Regulation had been discussed and discarded. The regulation froze retail mark-ups existing on March 19, 1945, for each retailer, and required the filing of detailed price charts with OPA. Maximum prices were to be determined by applying the specific mark-ups for each cost price within a particular category of goods to the invoice cost. Thus, it is expected that cost reductions effected at the manufacturers' level, as under MAP, automatically will be passed on in lower prices to the consumer.

Further upward adjustments in ceilings were necessitated in a number of fields other than textiles. Some increases in food prices were made as a result of the provision in the Stabilization Extension Act for adjustment of maximum prices to make allowance for substantial reductions in crop yields, unusual increases in costs of production, and other hazards. In industrial goods the pressure of higher costs forced some important upward adjustments, some of them the immediate result of higher wages allowed by the National War Labor Board, and others the result of accumulated pressures since ceilings were first established. Among the products for which higher ceilings were allowed were iron and steel, pig iron, coal, wood pulp and newsprint, brick, and cement.

The problem of reconversion pricing of refrigerators, electric irons, automobiles, and other consumer goods, production of which had been banned, became of particular importance with the approach of VE-day. General policy was announced by OPA on May 11, 1945. Its primary objective was to return peacetime goods to the market at 1942 retail prices but it was also aimed at the continued prevention

of inflation, the attainment of full production and full employment, and the gradual relaxation of price controls during the period of reconversion. Wherever possible manufacturers were expected to return to ceilings already in existence for goods previously produced—usually March 1942. Provision was made, however, for adjustment for cost increases specifically approved by OPA. This was to be done on an industry-wide basis by adjusting 1941 costs by lawful increases in materials costs and in basic wage rates and by applying the peacetime margin in the years 1936–39. New products could be priced on the basis of competitors' prices or under a formula, without prior clearance with OPA. Provisions also were made for hardship adjustments for individual firms. Small companies (those having an annual sales volume under \$200,000) were permitted more liberal prices.

During the summer, OPA was engaged in detailed cost studies in some 30 industries to determine permissible adjustments of 1941 costs. The first of these was announced in late July for aluminum cooking utensils. Manufacturers were permitted to raise their 1941 prices by 10 percent for articles made from sheet aluminum and 3 percent for articles made from cast aluminum.

To facilitate reconversion pricing, OPA in July 1945 announced a program for removal of controls in less important fields, under four conditions: (1) If the action would not result in an increase in the price; (2) if the commodity or service did not enter significantly into the cost of living or business costs; (3) if continued control involved administrative difficulties out of proportion to the effectiveness of control or the contribution to economic stabilization; and (4) if suspension presented no threat of diversion of materials, facilities, or manpower from war production and did not impair effective price control on other items. Among the commodities exempted under this ruling were jewelry items, sports equipment, toys retailing for 25 cents or less, luxury furs and fur garments, cigarette lighters, pipes, some photographic apparatus, clothespins, and notions.

Major Problems of Price Control Since GMPR

Underlying all OPA policies and actions taken during the war to maintain price stability were certain major problems inherent in Government control of a war economy. These persisted and became even more troublesome with the prolongation of the war. Important among them were rising purchasing power in the face of increased scarcities, rising costs, and difficulties of enforcement.

The cause of increased purchasing power lies in war demands for goods which raised aggregate output and incomes to record heights. The gross national product of the United States increased from 89 billion dollars in 1939 to 199 billion dollars in 1944 and income payments to individuals from 71 billion to 157 billion dollars during the same period. Despite a sixfold increase in taxes between 1939 and 1944, the amount of individuals' incomes available for expenditure, after payment of taxes, was 137½ billion dollars in 1944, or more than double the amount available in 1939. During the first years of the war, increased output was attained simply by greater utilization of unused capacity of equipment and new sources of labor. Scarcities were restricted to a relatively few critical materials, such as rubber

and some metals.* It was even possible to build up large stocks of some goods, which cushioned the effect of later restrictions on civilian production.

After the United States entry into the war, however, it became necessary to curtail civilian production, particularly of durable goods, in order to meet military demands. With the depletion of accumulated stocks of goods no longer in production, consumers expended their excess dollars on goods which were still available and on higher-priced articles. Retail sales of durable goods, which had increased during 1940 and 1941, were lower in 1943 and 1944 than in 1939, and dollar sales of nondurable goods nearly doubled. Acute scarcities of some articles developed and there was a general disappearance of low price lines. During 1944 and 1945 shortages became severe in many fields, including everyday needs in food and clothing.

Besides these general inflationary influences on prices, there was the direct pressure of rising costs on ceilings. Basic wages were free of control until October 1942, and total labor costs have never been stabilized. Even after October 1942, labor costs mounted as the result of some approved wage increases, overtime pay and shift differentials, upgrading of workers, decreased efficiency of untrained workers, higher turn-over, and other factors. Raw material costs have also increased. Prices of uncontrolled farm products and other primary products have risen and scarcity of some materials has necessitated use of higher-cost substitutes. There have also been increases in operating costs, such as higher transportation costs, increased obsolescence and wear and tear of equipment, higher rents, higher cost of maintenance services, etc.

Numerous requests were received for upward adjustments of ceilings, and OPA developed standards for dealing with them. In general that agency followed the principle of cost absorption, under which unavoidable increases in prices at primary stages of production were absorbed in varying degrees before reaching the ultimate seller. When it could be clearly shown that higher ceilings were essential to secure greater production of articles in demand for the war effort, such as lumber, ceiling increases were permitted. In other cases OPA followed two standards—the industry-earnings standard and the product standard. Under the former, ceiling increases were permitted if necessary to allow an industry as a whole to maintain its earnings at peacetime levels, and under the latter, if necessary to cover actual costs of production on a given commodity.

Enforcement of OPA price regulations has been difficult and the enforcement staff inadequate. Considerable reliance has been placed upon voluntary cooperation and public opinion, and valuable aid has been rendered by price-panel assistants.

Because of the magnitude of the policing problem, even prevention of open violations has not been easy. Proof of violation has been difficult except when specific dollars-and-cents ceilings had been established and even in many of these cases customers have been unwilling to report violations to OPA. Many violations were not deliberate but the result of ignorance of the law. In large part, OPA adopted the policy of prosecuting only the most flagrant offenders as an object lesson to others.

Prevention and elimination of black markets has presented even greater difficulties. For the most part these have flourished for com-

modities which are extremely scarce, or rationed (such as gasoline and meat), and for which the demand is especially strong. Detection is difficult and customers have been loath to inform on their source of supply.

"Hidden price increases" have been common and of many varieties. They may be classified in four main groups: ¹³ (1) Addition of extras and elimination of discounts or concessions, (2) quality deterioration, (3) discontinuance of cheaper lines and special services, and (4) changes in channels of distribution or methods of transportation. Included in the first group are discontinuance or lowering of customary discounts, differentials, or commissions to different classes of purchasers; extra charges in the form of bets, bribes, tips, gifts, "kick-backs," cash payments on the side, or fictitious quantity estimates; charges for delivery or other services not formerly performed or formerly performed free; charges for fictitious legal or brokerage services; charges for goods not actually delivered, etc.

Quality deterioration has been most common for nonstandard, style merchandise. It takes a variety of forms—upgrading, shortweighting, reduction of workmanship, defective workmanship, reduction in weight, changes in style or design, use of substitute or inferior grades or materials, blending with less-expensive grades or materials, reduction in the amount of materials used, decrease in the length of the guaranty period, combination sales at higher prices, forced purchase of an unwanted commodity as a condition for sale of scarce commodity, etc.

Included under the third grouping are the discontinuance of special services formerly offered customers in retail stores, such as sales on approval, style shows, deliveries of small packages, and gift wrapping; and the discontinuance of low-priced lines. The latter tendency, which has been so noticeable in the American war economy, has arisen from greatly increased demand for higher-priced merchandise by customers and from the desire of businessmen to reap the larger profit usually obtained from higher-priced goods.

Finally, added costs have resulted in some cases from changes in channels of distribution or methods of transportation. Examples are the pyramiding of mark-ups through dummy jobbing companies, splitting shipments to obtain premiums allowed for less-than-carload lots, making truck deliveries in order to qualify for the legal mark-up allowed to service jobbers; changes in basing point, shift from water to rail transportation, etc.

A close relationship between quality control and price control is necessary in order to prevent indirect increases. Ceiling prices are meaningless except as applied to goods of known specifications. This fact was recognized by OPA. Under the authority of the Emergency Price Control Act which authorized the regulation of "manipulative practices," including "practices relating to changes in form or quality," OPA established standards in many regulations. As of September 30, 1943, out of 444 price regulations in effect, 261 contained standards provisions. Most of these standards had been in general use in the trade before their use by OPA. The Taft amendment to the Emergency Price Control Act of 1942, which was passed as a rider to the

¹³ Indirect Price Increases, by Melville J. Ulmer, in Monthly Labor Review, November 1942.

Commodity Credit Corporation Act on July 16, 1943, permitted use of such standards but forbade compulsory grade labeling and further standardization by OPA. For many articles, particularly style merchandise, standardization is not possible. For such goods, hidden price increases have been a major element in the wartime price situation.

Outlook for Price Control

As to the outlook for price control, opinions differ as to the probable course of price movements during the next few years. VE-day, with its attendant relaxation of some Government controls over production, already had signaled for some people the passing of the inflationary threat and had caused some requests for more-generous ceilings on reconverted goods and early elimination of price controls. Undoubtedly the end of the war with Japan will intensify such requests.

On the other hand, there is a huge pent-up demand for housing, automobiles, and other durable goods, and a large reserve of liquid funds has been accumulated during the war by civilians, which is available for the satisfaction of such deferred demands.

The goal of Government price control policy is clearly the stabilization of prices throughout the reconversion and early postwar periods, in order to prevent a repetition of the sudden deflation and subsequent inflation which followed World War I. To this end the Congress has extended the Stabilization Act to June 30, 1946, continuing OPA's authority to control prices without major change.



Removal of Certain Canadian Manpower Regulations

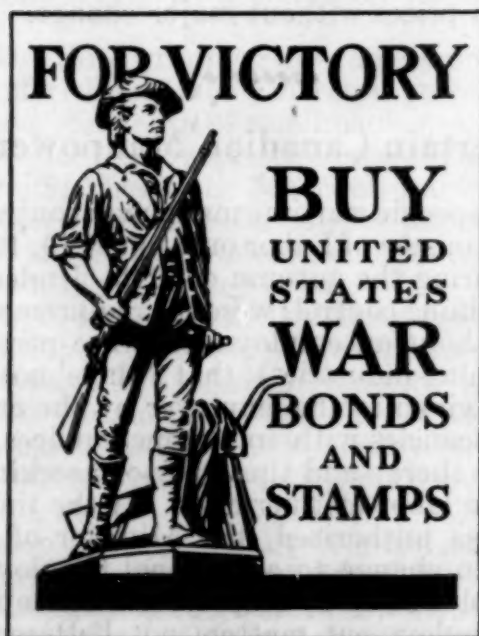
THE removal of 13 specific wartime manpower controls was announced by the Canadian Minister of Labor on August 16, 1945,¹ to take effect on various dates during the autumn of 1945. Under the changed program, the only remaining controls were the requirements that men must not accept jobs without an employment-office permit (except in the agricultural and fishing industries); that 7 days' notice of intention to quit a job must be given to the employer by the employee; that employers must list vacancies with employment offices, and those seeking work must register there; and those persons seeking work outside of Canada must obtain labor-exit permits. At the time that the relaxation of control was authorized, the Minister of Labor stated that the objective was to change to a National Employment Service that would be utilized voluntarily by employers and employees and would give "service in employment matters not bettered anywhere in the world." To make this service possible, a reporting system of vacancies and placements similar to that already utilized in respect to women was to take the place of remaining controls within a short time.

From the standpoint of labor, withdrawal of the following measures was especially important. Effective on September 3, men who were moved from one wartime job to another under compulsory direction were free to return to any job they chose. On September 17, men were

¹ Information is from Facts and Figures Weekly (Ottawa), No. 132, August 16-22, 1945; and Winnipeg Free Press, August 17, 1945.

freed from the obligation to remain in certain designated establishments. Although the job "freezing" provision was thus abolished, workers were urged to continue at their tasks. Following the next harvest (the tentative date being set as November 15) men previously forbidden to leave agricultural employment without permission of a labor employment office were to be allowed to leave agricultural work. The same time was fixed for rescinding the rule that an employment office might compulsorily direct men between the ages of 16 and 65 years of age to work in agriculture, mining, and a few other basic industries.

Employers were affected by the removal of the restriction whereby they were forbidden to advertise for workers without permits. Beginning on September 3, they might advertise at will for workers, provided they first registered the vacancy with the employment office, and provided men responding to the advertising were directed to apply to the employment officer rather than to the employer and were sent by the officer to the employer.



Employment Conditions

Employment Trends in Seven North Central States, 1939-45¹

Summary

THE seven North Central States of Illinois, Wisconsin, Minnesota, Iowa, Nebraska, and the Dakotas reached their peak wartime manufacturing employment of 2,220,000 in January 1944.² This was 71 percent above the prewar level of 1,300,000. Since the wartime high, employment has been declining in each of these States and by April 1945 had fallen to about 2,000,000, a decrease of 7 percent.

The magnitude of the task of achieving full employment for these States is indicated by the fact that even after a decline of 7 percent from the war peak, regional manufacturing employment in April 1945 was still 700,000 above the prewar level. There were, roughly, three war jobs to every two peacetime manufacturing jobs.

These figures do not make allowance for nonmanufacturing employment changes nor for some 1,300,000 persons who entered the armed services from the seven States, most of whom will be seeking employment in some field in the near future; nor do they make allowance for the 700,000 civilians who emigrated from the region between 1940 and 1943, many of whom may want to return with the coming of peacetime conditions.

The war greatly altered not only the level of manufacturing employment, but also the peacetime pattern of employment. Most significant was the vastly greater proportion of workers employed in the metalworking industries. Although employment in some industries leveled off or declined, metalworking employment expanded from around 500,000 to about 1,200,000 in January 1944, an increase of 140 percent. Should the metalworking industries return to their 1939 level, over two-thirds of a million workers would have to change jobs or leave the labor market.

Illinois, Wisconsin, and Minnesota face the most serious problems of metalworking reconversion from the standpoint of the number of workers. Together, they had 660,000 more workers in metalworking in 1944 than before the war. Nebraska experienced the greatest percentage increase; its metalworking employment jumped from about 3,000 in 1939 to 30,000 in 1944, an increase of 900 percent.

Wartime peak employment for individual States varied over a period from April 1943 to February 1945. Wisconsin, Minnesota, and Iowa reached their maximum employment in the summer and early fall of

¹ Prepared by John B. Parrish, regional director of Region IX, Bureau of Labor Statistics. Wallace P. Mors assisted in the analysis, and John P. Wymer and Emeline French supervised the statistical tabulation.

² A slightly higher regional peak occurred in August 1943, but this was due to purely seasonal factors.

1943. Illinois reached its peak over a year later, in January of 1944. Nebraska did not reach full wartime employment until 1945.

The decline, which began in 1944 in all the States except Nebraska, was due, in part, to contract cut-backs and to the inability of industry to replace workers who shifted to other jobs or left the labor market.

Economic Characteristics of the North Central States

The basic facts presented in this article represent an initial step in a project, undertaken by the Bureau of Labor Statistics in cooperation with the States, to develop current monthly estimates of employment. The present analysis was prepared in the Bureau's regional office in Chicago. Similar work is under way in the Bureau's other seven regional offices located in Boston, New York, Atlanta, Cleveland, Dallas, Denver, and San Francisco.

The development of employment data for manufacturing and non-manufacturing, as well as information on hours and earnings for each State, has been made possible by a congressional appropriation granted in January 1945. These State data, in addition to being important in themselves, will also strengthen the Bureau's national series. For the first time, an adequate reporting sample of service establishments such as garages, barber shops, beauty parlors, etc., will be provided. As a byproduct, the expansion may also provide estimates of the number of small business proprietors, professional proprietors, and self-employed in other nonagricultural establishments. A sample of employer reports representing establishments classified as construction establishments by the unemployment-compensation agencies, when used in conjunction with the Bureau's construction-activity data (derived from building permits and other construction expenditure series), will amplify and refine the available construction-employment information.

The Bureau's State employment statistics program facilitates analysis of employment movements in each of the several States and in regional groupings of States. The employment information presented herewith for the North Central States serves as an example of a type of regional economic analysis made possible by the availability of detailed State employment data.

The seven North Central States are of national importance in agriculture. All were in the upper one-half of States as regards cash income from farm marketing in 1941, and four were among the top 10 (see table 1). Three of the seven States (Illinois, Wisconsin, and Minnesota) are also of national importance in manufacturing. They ranked third, ninth, and seventeenth, respectively, in dollar volume of manufactured products in 1939. About a seventh of the Nation's population lives in the seven States.

Although the seven States do not constitute a homogeneous economic unit, they do possess characteristics of an economic region, as the agricultural areas tend to complement the urban manufacturing centers. Their great output of wheat, corn, livestock, and dairy products moves eastward into the urban industrial centers. From these centers fabricated and processed products, in turn, move back to the agricultural areas.

The manufacturing centers of the North Central States form a great triangle. The base is made up of cities which cluster around a

line running between Minneapolis-St. Paul in the north and East St. Louis to the south. The sides of the triangle are formed by lines which meet in the vicinity of Chicago. The latter serves as a focal point for distribution of products within the region and between the region and the rest of the Nation. Within the triangle lies the greater part of the region's manufacturing.

Lying just outside the triangle are natural resources necessary both for manufacturing and agriculture. In central and southern Illinois are oil and coal. In upper Wisconsin and Minnesota are lumber and iron.

TABLE 1.—*Status of 7 North Central States in the National Economy*¹

Area	Population, 1940 census			Total income payments, 1941		
	Number of persons (in thousands)	Percent of United States total	National rank	Amount (in millions of dollars)	Percent of United States total	National rank
United States: Total.....	131,669	100.0	-----	91,910	100.0	-----
Seven North Central States: Total.....	18,966	14.1	-----	13,249	14.2	-----
Illinois.....	7,897	6.0	3	6,770	7.3	3
Wisconsin.....	3,138	2.4	13	1,979	2.2	12
Minnesota.....	2,792	2.1	17	1,665	1.8	14
Iowa.....	2,538	1.9	20	1,556	1.6	15
Nebraska.....	1,316	.9	33	658	.7	32
South Dakota.....	643	.4	39	300	.3	41
North Dakota.....	642	.4	40	331	.3	38

Area	Value of manufactured products, 1939			Cash income from farm marketing, 1941		
	Amount (in millions of dollars)	Percent of United States total	National rank	Amount (in millions of dollars)	Percent of United States total	National rank
United States: Total.....	56,843	100.0	-----	11,158	100.0	-----
Seven North Central States: Total.....	8,361	14.4	-----	3,163	28.1	-----
Illinois.....	4,795	8.4	3	704	6.3	4
Wisconsin.....	1,605	2.8	9	430	3.8	6
Minnesota.....	845	1.3	17	490	4.3	5
Iowa.....	719	1.2	20	869	7.8	1
Nebraska.....	273	.5	33	290	2.6	14
South Dakota.....	81	.1	45	171	1.5	23
North Dakota.....	43	.01	48	209	1.8	19

¹ Source: Statistical Abstract of the United States, 1943.

Effect of War in North Central States

The war came slowly to the seven North Central States. Major expansion did not occur until early 1943.³ Wartime migration of workers was heavy. It has been estimated that nearly 700,000 civilians left the region in 1940-43, or about 100,000 more than the natural growth of the population. When losses to the armed services are taken into consideration, the decrease in civilians amounted to 1½ million persons, or about 10 percent of the region's 1940 population (see table 2). This testifies both to the surplus labor force available

³ For a nonstatistical analysis, see *Manufacturing Employment Trends, in Business Conditions* (Federal Reserve Bank, Chicago, Ill, December 1944, p. 1).

before the war in the agricultural sections and to the magnificent war production job done by the smaller residual population during the war period.⁴

TABLE 2.—*Changes in Civilian Population of the United States and 7 North Central States, April 1, 1940–November 1, 1943*¹

Area	Estimated net gain or loss through civilian migration		Estimated natural increase	Estimated net loss to armed forces	Estimated net decrease in civilian population
	Number	Percent of 1940 civilian population			
United States.....	² +305, 112	+0.2	5, 261, 586	9, 740, 000	4, 173, 302
Seven North Central States.....	-704, 677	-3.7	628, 308	1, 318, 169	1, 394, 478
Illinois.....	+68, 562	+ .9	218, 807	615, 120	327, 751
Wisconsin.....	-102, 854	-3.3	112, 786	202, 950	193, 018
Minnesota.....	-191, 964	-6.9	111, 738	188, 026	268, 252
Iowa.....	-192, 584	-7.6	85, 717	155, 652	262, 519
Nebraska.....	-96, 294	-7.3	40, 907	83, 532	138, 919
South Dakota.....	-89, 113	-13.9	26, 486	35, 746	98, 373
North Dakota.....	-100, 430	-15.6	31, 927	37, 143	105, 646

¹ Source: Wartime Migration in United States, by Hope Tisdale Eldridge, in Domestic Commerce, September 1944, p. 8.

² Represents net migration into United States.

In the agricultural States of the Dakotas, Nebraska, Iowa, and Minnesota, the loss of population was general. Out of nearly 400 counties in these five States, all but 23 lost population. There was considerable reshuffling of population within the States of Illinois and Wisconsin, as the urban manufacturing areas gained at the expense of the rural counties (see table 3).

TABLE 3.—*Summary of Net Intercounty and Net Interstate Civilian Migration, by State, April 1, 1940, to November 1, 1943*¹

State	Total net intercounty migration				Net interstate migration	
	For counties with net losses		For counties with net gains		Net emigration	Net immigration
	Number of counties	Losses	Number of counties	Gains		
Illinois.....	77	169, 842	25	247, 871	-----	78, 029
Iowa.....	93	199, 283	6	9, 086	190, 197	-----
Minnesota.....	82	199, 770	5	12, 660	187, 110	-----
Nebraska.....	83	111, 642	10	16, 852	94, 790	-----
North Dakota.....	53	99, 966	0	0	99, 966	-----
South Dakota ²	67	91, 342	2	2, 786	88, 556	-----
Wisconsin.....	56	150, 296	15	48, 681	101, 585	-----

¹ Source: Estimates of Net Civilian Intercounty Migration, April 1, 1940, to November 1, 1943 (War Manpower Commission, Washington, p. 3, table 1).

² Shannon and Washington Counties were consolidated on March 5, 1944, and called Shannon County, but in this report they are counted separately.

⁴ In Illinois, the value of manufactured products rose from 4.8 billion dollars in 1939 to 7.7 billions in 1941 and 13 billions in 1944. In Wisconsin the value rose from 1.6 billion dollars in 1939 to 2.6 billions in 1941 and 4.5 billions in 1944. Data are not available for the other States. (Source: Seventh Federal Reserve Bank.)

Manufacturing in the Regional Economy

The seven North Central States employed approximately 1,300,000 manufacturing workers in 1939, or about 1 of every 8 factory workers in the Nation.⁵

In the prewar employment pattern of 1940, manufacturing constituted the largest single source of employment in Illinois and shared first place with agriculture in the State of Wisconsin. Manufacturing employment ranked third in Minnesota and Iowa, and fourth in Nebraska. Only in the Dakotas did manufacturing employ fewer workers than agriculture or the services (table 4).

TABLE 4.—Percentage Distribution of Employed Workers, 14 Years Old and Over, in Seven North Central States, by Major Industry Group, 1940¹

Industry	Illinois	Wisconsin	Minnesota	Iowa	Nebraska	South Dakota	North Dakota
Total employed (except on public emergency work)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	9.9	25.9	30.4	35.8	37.4	48.1	53.4
Mining	1.7	.2	.9	.7	.1	1.4	.5
Construction	4.1	3.7	4.0	4.2	3.9	3.0	2.0
Manufacturing	28.6	25.5	12.4	11.4	6.9	4.5	2.5
Transportation, communication	9.0	5.7	7.0	6.6	7.8	4.4	5.1
Wholesale and retail trade	9.5	15.8	18.5	16.8	17.2	14.7	13.7
Finance, insurance, real estate	4.1	2.3	3.1	2.5	3.2	1.7	1.6
Business and repair services	2.3	1.8	2.1	2.1	2.2	2.0	1.9
Personal services	7.8	6.6	7.5	6.7	7.2	5.7	6.1
Amusement and recreation	.1	.6	.8	.7	.8	.7	.6
Professional services	7.3	7.5	8.6	7.9	8.4	8.8	7.9
Government	3.5	2.9	3.5	2.7	3.9	3.6	3.5
Industry not reported	1.3	1.4	1.2	1.8	1.1	1.3	1.3

¹ Source: 16th Census of United States 1940: Population, Vol. II, pp. 1-7, table 18.

In the seven North Central States manufacturing rests on two basic industries—food processing and metalworking (table 5). These two industry groups alone accounted for over half of all manufacturing workers in each of the seven States. Metalworking is of greatest importance in Illinois and Wisconsin, which have such well-known centers as Chicago, Rockford, East St. Louis, Peoria, and Milwaukee (often referred to as the "machine shop of the Nation"). In Minnesota, metalworking is exceeded slightly by the food industry. In the other States, the food industries are preeminent by a wide margin; in fact, in the Dakotas and Nebraska, nearly two-thirds of all factory workers were employed in the food industry.

⁵ The data shown in table 5 are from the Census of Manufactures, 1939. Because of adjustments for classification, and other factors, the figures shown in table 5 are slightly less than the figures estimated by the Bureau of Labor Statistics.

TABLE 5.—*Employment in All Manufacturing and in Selected Industry Groups, United States and 7 North Central States, 1939*¹

Industry group	United States	Seven North Central States	Illinois	Wisconsin	Minnesota	Iowa	Nebraska	South Dakota	North Dakota
Number (in thousands)									
All manufacturing.....	9,622.9	1,251.9	764.2	256.2	104.4	88.8	26.7	7.5	4.1
Food and kindred products.....	1,132.6	255.1	123.9	37.9	34.3	35.7	15.5	5.1	2.8
Metalworking.....	3,074.7	464.2	311.9	106.0	22.3	22.3	2.5	(²)	(²)
Other manufacturing.....	5,415.6	532.6	328.4	112.3	47.8	47.8	8.7	2.4	1.3
Percentage distribution									
All manufacturing.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food and kindred products.....	11.8	20.4	16.2	14.8	32.9	40.2	58.1	68.0	68.3
Metalworking.....	32.0	37.1	40.8	41.4	21.4	24.1	9.4	0	0
Other manufacturing.....	56.2	42.5	43.0	43.8	45.7	35.7	32.5	32.0	31.7

¹ Source: United States Bureau of the Census, Census of Manufactures, 1939.² Exclusive of North and South Dakota.³ Included in other manufacturing.⁴ Exclusive of part of nonferrous metal products.⁵ Includes metalworking industries in North and South Dakota and part of nonferrous-metal products in Nebraska.⁶ Includes part of nonferrous-metal products.⁷ Includes metalworking industries.

Wartime Manufacturing Trends: Regional Summary

The expansion of war production facilities, although slower in the North Central States than in many other sections of the country, was of such magnitude as to alter the normal peacetime pattern of manufacturing. War Production Board statistics show that by March 1944 some 2.5 billion dollars, or 12 percent of the national total, had been invested in new or converted industry facilities in the seven States. About 1.7 billion dollars, or 64 percent of the total, went for such metalworking products as aircraft engines, airframes, ships, combat vehicles, guns and ammunition, electrical equipment, and machine tools. Nearly half a billion dollars went into facilities for explosives and other chemical products, 60 millions for petroleum facilities, and 31 millions for food-processing plants (one-third of the total United States expenditures for this type of facility).

In the prewar year of 1939, manufacturing employment in the region was approximately 1,300,000. Beginning slowly in 1941 and then accelerating rapidly in 1942 and 1943, the number of factory workers rose steadily until it reached a peak of 2,217,000 in January 1944. This was 71 percent above the prewar level.

Dominating the wartime rise was the spectacular growth of the metalworking industries. This was to be expected, as 2 out of every 3 dollars spent on war production facilities went into this category. Employment in these industries reached a seven-State peak of 1.2 millions in January 1944—nearly 140 percent higher than the prewar level of about half a million workers.

As shown in table 6, the proportion of metalworking to total manufacturing employment rose from a little over a third to well over half in each of the five States for which adequate data are available.

TABLE 6.—*Employment in Metalworking and in All Manufacturing, in 7 North Central States, October 1939 and January 1944*¹

State	All manufacturing		Metalworking			
	Employment (in thousands)		Employment (in thousands)		Percent of all manufacturing employment	
	October 1939 ²	January 1944	October 1939 ²	January 1944	October 1939	January 1944
Seven North Central States.....	1, 373. 3	2, 217. 2	507. 5	1, 203. 1	37. 0	54. 3
Illinois.....	852. 0	1, 318. 3	350. 2	764. 7	41. 1	58. 0
Wisconsin.....	268. 0	443. 6	106. 9	264. 9	39. 9	59. 7
Minnesota.....	113. 0	213. 1	24. 2	85. 2	21. 4	40. 0
Iowa.....	96. 4	164. 4	23. 2	60. 6	24. 1	36. 9
Nebraska.....	31. 5	61. 5	3. 0	27. 0	9. 5	43. 9
South Dakota.....	8. 0	10. 4	(³)	(⁴)	(³)	(⁴)
North Dakota.....	4. 4	5. 9	(³)	(⁴)	(³)	(⁴)

¹ January 1944 was the peak month for metalworking employment for the region. Metalworking industries include iron and steel and their products, transportation equipment, automobiles, nonferrous metals and their products, electrical machinery, and machinery (except electrical). Industrial classifications are based on 1939 Census of Manufactures. Data do not include self-employed, proprietors, or members of the armed services.

² The metalworking figures for 1939 are approximations and were obtained by taking the Bureau of Census percent of employment in metalworking to total manufacturing employment for each State in October 1939 and applying that percentage to the Bureau of Labor Statistics October 1939 total manufacturing employment estimates for each State.

³ Less than 1 percent of total.

⁴ Less than 2,000 employees.

In Minnesota, the proportion of metalworking employees just about doubled from October 1939 to January 1944. In Nebraska the number of metalworkers jumped from around 3,000 to 27,000, an increase of 800 percent, and the proportion of metalworking employment to all manufacturing rose from 10 percent to 44 percent.

If the region's metalworking industries which produced such war items as guns, tanks, aircraft engines, airframes, and radio and radar equipment fall back to the 1939 level, two-thirds of a million workers will have to find other jobs or leave the labor market. The State of Illinois, which has slightly over 400,000 or 65 percent of this seven-State metalworking increase, faces the most serious problem from the standpoint of the number of workers involved. Wisconsin and Minnesota reconversion problems loom large also. Wisconsin had an increase of 158,000 wartime metalworking workers and Minnesota had 61,000. From the viewpoint of percentage change, Nebraska faces the most difficult reconversion task, in view of the 800 percent increase in metalworking employment.

While the average peak of wartime manufacturing employment for the region was reached in January 1944,⁵ the high mark for the individual States varied over a period from April 1943 to February 1945. Wisconsin, Minnesota, and Iowa reached their maximum wartime employment in the summer and early fall of 1943. Illinois reached its peak in January 1944. Nebraska did not reach full wartime production in manufacturing until January 1945.

Employment throughout the region as a whole declined slowly but steadily after January 1944. By April 1945, total manufacturing employment had fallen off to approximately 2 million workers, or a decline of around 7 percent.

Prior to April of this year (1945) the extent of each State's decline from its wartime peak had varied considerably. For the country

⁵ A slightly higher regional peak was reached in August 1943, but this was due to purely seasonal factors.

as a whole the peak of wartime manufacturing employment was reached in the late fall of 1943; in the different States the period varied because of differences in their industrial structure. Some war industries reached a peak of wartime employment later than others because of differences in trends, differences in seasonal movements, or a combination of these influences. Illinois and Wisconsin experienced a decrease from peak employment of around 8 percent and in both States the decline reflected the downward trend in the metalworking industries. Minnesota and Nebraska, on the other hand, showed marked stability, their declines amounting to less than 4 percent. Employment in Iowa declined 5.7 percent; in North Dakota, 9.0 percent; and in South Dakota, 11.2 percent. A more detailed description of each State's wartime employment trends follows.

ILLINOIS

Illinois, which accounted for approximately 60 percent of all manufacturing in the seven States, reached its peak employment of 1,318,300 in January 1944, an increase of 64 percent over the 1939 level. After January 1944, Illinois manufacturing employment declined 8.5 percent to April 1945. This decline was about 2 percent greater than the average for the seven States.

As in the entire region, wartime manufacturing expansion in Illinois was dominated by the metalworking industries. In the prewar year of 1939, metalworking accounted for roughly 41 percent of the total of about 852,000 manufacturing workers (table 6). At the war peak, metalworking plants employed about 58 percent of the total manufacturing employment of 1,318,300. The slow decline of this basic war industry after the peak but before VE-day may be seen in the following estimates for the four principal branches of the metalworking group:

	Employment, April 1945 (in thousands)	Percent of decrease from peak month, January 1944
All metalworking-----	705. 6	7. 7
Iron and steel-----	220. 5	11. 6
Other machinery-----	184. 9	8. 2
Transportation equipment, including automob- iles-----	127. 1	8. 7
Electrical machinery-----	118. 7	10. 1

The peak wartime employment of 764,700 in metalworking was 450,000 higher than the average prewar employment in 1939.

Another major Illinois industry, food processing, which in the high month of January 1943 employed nearly 160,000 persons, had declined 22 percent by April 1945. The decline was partly seasonal, but major causes of the decline were inability of the industry to get a sufficient supply of labor and materials. In April 1945, employment in this industry stood virtually at the 1939 level.

Illinois has a high degree of diversity in manufacturing. This will undoubtedly prove of great value in the reemployment of Illinois workers in peacetime production. Employment in most Illinois manufacturing industries, apart from metalworking and food, showed little change during the last 2½ years of the war period. The leather products, printing and publishing, stone, clay, and glass products, paper and allied products, and textile products industries stabilized

their wartime employment at a point not far from their prewar levels. The number of workers in the industries producing petroleum and coal products, chemicals, and miscellaneous products (which includes the production of scientific instruments) increased considerably from 1939 to 1943, but showed little variation in 1943, 1944, and early 1945. During the latter period, the apparel and lumber and furniture industries experienced a slow employment decline caused by labor and material shortages.

WISCONSIN

Wisconsin, which accounted for about 20 percent of the seven-State manufacturing total, reached its wartime peak of 465,000 persons in July 1944. This represented an increase of 210,000, or about 83 percent over the prewar level of 1939. After the peak wartime month Wisconsin's employment declined steadily to 427,000 workers in April of 1945, as shown below. The decline in food and kindred products was seasonal.

	Employment (in thousands)		Percent of change, July 1944 to April 1945
	July 1944	April 1945	
All manufacturing.....	465. 4	427. 4	-8. 2
Food and kindred products.....	71. 3	46. 9	-34. 3
Metalworking.....	266. 1	252. 8	-5. 0
Other manufacturing.....	128. 0	127. 7	-. 3

Wisconsin's wartime manufacturing was dominated by metalworking and food processing, which in the peak month of July 1944 employed about 60 and 15 percent, respectively, of all manufacturing workers. As in Illinois, a tremendous reconversion problem confronts the metalworking industries, for at the war peak, employment was 148 percent above the 1939 level of 107,000 workers. The total reconversion task will involve jobs for nearly 160,000 metalworking employees.

In contrast to Illinois, the food industry in Wisconsin has shown a consistent expansion since January 1943. The seasonal peak employment of 65,000 in August 1944 was over 5,000 greater than the corresponding figure for 1943. Using the first 4 months of the year as the basis of comparison, employment in 1945 averaged about 5,000 more than in 1943 and exceeded 1944 by a slight margin. On the basis of the best data available, employment in the food industry early in 1945 was at least 10,000 higher than in the prewar year of 1939.

Wisconsin's critical lumber industry was unable to hold its own during the war. Despite the efforts of Federal war agencies to maintain employment, the number of workers slowly declined from about 20,000 in January 1943 to around 15,000 in January 1945. Also declining somewhat in 1945 were textile mills and the leather industry, both of which were adversely affected by shortages of labor and materials. Early in 1945 both industries were near their prewar employment levels after some gains earlier in the war period.

The apparel and furniture industries had rather stabilized employment from 1943 to 1945. The paper and allied products and the printing and publishing industries also displayed a high degree of stability. The chemicals industry declined sharply from a high of 16,000 in the summer of 1943 to 9,300 in April 1944. In early 1945 it recovered more than half of this employment loss. The latter trend resulted, in part, from the accelerated munitions programs.

MINNESOTA

Manufacturing employment in Minnesota rose from about 110,000 in 1939 to a seasonal wartime peak of 225,000, an increase of approximately 114 percent. Except for seasonal variations, employment during the period 1943 to April 1945 was remarkably stable at a level slightly higher than 210,000.

The ability of the metalworking industry to maintain a high stable employment level in 1944, culminating in a peak of 87,400 in March 1945, chiefly accounts for the maintenance of total manufacturing employment in the first 4 months of 1945 at approximately the 1943 and 1944 levels. The slight decrease in April of about 2.5 percent was shared equally by metalworking, food, and other manufacturing, as shown below.

	Employment (in thousands)		Percent of change,
	March 1945 ¹	April 1945	March to April 1945
All manufacturing-----	213. 6	208. 1	-2. 6
Metalworking-----	87. 4	84. 7	-3. 1
Food-----	41. 7	40. 6	-2. 7
Other manufacturing-----	84. 5	82. 8	-2. 0

¹ The peak in metalworking employment and the virtual peak in all manufacturing employment occurred in March 1945. The actual peak employment figure of 225,700 in August 1943 was due to an unusually large seasonal peak employment in the food industry.

Three industries—metalworking, food, and chemicals and allied products—have accounted for virtually 70 percent of all manufacturing employment during the war period. Metalworking, the largest of the three, also showed the most spectacular gain during the war, its peak employment in March 1945 amounting to more than 2½ times the prewar level. Metalworking employment by 1945 accounted for over 40 percent of total manufacturing employment, about double the corresponding figure for 1939. If previous trends are any indication, reconversion will take place in Minnesota at a later date than in Illinois or Wisconsin.

The food industry averaged about 46,500 workers in both 1943 and 1944 and, allowing for seasonal movements, was holding to this level through April 1945. This compares with a prewar average of slightly under 35,000 workers.

Unlike metalworking and food, the chemical industry reached its high employment of 30,000 in July 1943 and declined steadily from that time to 20,000 in April 1945.

The textile, apparel, lumber, furniture, paper, and stone, clay, and glass industries have, since January 1943, had two characteristics in common: (1) Employment has exhibited no sharp upward or downward movements, and (2) the average employment for 1943 and 1944 has been remarkably uniform, moving in a narrow range around 7,000. The figures for the first 4 months of 1945 maintained the previous patterns.

The printing industry remained relatively constant between 11,000 and 12,000 during the 1943–April 1945 period. The remaining industries, such as tobacco and rubber, were of negligible importance.

IOWA

Owing to the seasonal rise of the food industry, manufacturing employment in Iowa reached a wartime peak of 170,000 in September 1943. Eliminating the effects of seasonal variations, the wartime

employment peak occurred in the period October 1943 to February 1944. The manufacturing employment of 162,000 in February 1944 (equal to the average of 1943) represented an increase of 76 percent over the average of 1939.

After early 1944, total manufacturing employment declined and by April 1945 had decreased 5.7 percent, as shown below. Thus, Iowa has had a longer contraction period and a larger drop than some of the other States.

	Employment (in thousands)		Percent of change,
	February 1944 ¹	April 1945	February 1944 to April 1945
All manufacturing-----	162.0	152.7	-5.7
Metalworking-----	60.9	58.0	-4.8
Food-----	48.8	43.4	-11.1
Other manufacturing-----	52.3	51.3	-1.9

¹ February has been chosen as the virtual peak employment month because it coincides with the peak month in metalworking. Actually, the months from October 1943 to February 1944 had substantially the same total employment. The September 1943 total employment of 169,600 was a seasonal peak caused by the usual summer expansion of the food industry.

Nearly two-thirds of Iowa manufacturing employment is in two industries—metalworking and food. Metalworking, the slightly larger of the two, reached its wartime employment high of 61,000 in February 1944, an increase over the 1939 level of 244 percent. By April 1945 metalworking employment had eased off to 58,000, a decline of 4.8 percent.

Employment in the food industry averaged about 48,500 in 1943 and 1944. In 1943, however, the seasonal peak of 54,300 exceeded by 3,600 the seasonal peak of 1944. Employment in the first 4 months of 1945 was averaging at least 2,000 under the corresponding months of 1944. By April 1945 employment in food had dropped over 11 percent from the February 1944 level and was about 8 percent under April 1944. It was still well over the prewar average of about 35,000.

Individually, none of the remaining industries accounted for as much as 8 percent of total manufacturing employment. Except for lumber and several miscellaneous industries which had declining employment trends, the upward or downward movements were negligible.

NEBRASKA

In percentage terms, Nebraska led the other six States of the region in wartime expansion of manufacturing employment. The wartime high in February 1945 of 65,500 persons represented an increase of 125 percent over the 29,000 persons employed in 1939. By April 1945 total employment had declined 3.4 percent from the February 1945 level.

Metalworking employment showed the most rapid growth, increasing from about 3,000 in 1939 to 31,000 in February 1945, a rise of over 900 percent. It is worthy of note that nearly all of this expansion was due to the construction of large new aircraft and ordnance facilities in the State. In April 1945 metalworking employment had receded 4.8 percent to 29,500, as shown in the following statement

	Employment (in thousands)		Percent of change,
	February 1945 ¹	April 1945	February to April 1945
All manufacturing-----	65.5	63.3	-3.4
Metalworking-----	31.0	29.5	-4.8
Food-----	23.5	22.8	-3.0
Other manufacturing-----	11.0	11.0	-----

¹ Peak wartime month.

However, as of April 1945 the real reconversion problem in the Nebraska metalworking industry still lay in the future.

The food industry, which together with metalworking employed 5 out of every 6 manufacturing workers in Nebraska, remained highly stabilized at slightly under 25,000 workers through the 1943-April 1945 period. The seasonal movements were very narrow, having an amplitude of less than 2,000 in both 1943 and 1944. This contrasts sharply with the experience in Wisconsin, Minnesota, and Iowa. The decrease from February to April 1945 was 3 percent.

The remaining industries remained relatively constant at around 11,000 workers throughout the 1943-April 1945 period.

NORTH DAKOTA

The peak wartime manufacturing employment of 6,700 in November 1943 represented an increase of 5.6 percent over the 1939 level. Part of this increase was seasonal, however, since the November 1943 figure was heavily influenced by a seasonal peak in the food industry. By April 1945 manufacturing employment had fallen to 6,100, a decrease of 9 percent from November 1943.

Over two-thirds of the manufacturing employment is concentrated in the food industry. The average employment through the 1943-April 1945 period was about 4,500. In both 1943 and 1944 there were two seasonal peaks, one coming in the summer and the other in November. The movements above and below the average have been relatively narrow.

Employment in the remaining manufacturing industries increased slightly from about 1,300 in January 1943 to 1,700 in April 1945. As in South Dakota, the metal working industry experienced virtually no expansion. This, together with the nominal actual increase in manufacturing employment since 1939, will minimize the reconversion problem in North Dakota.

SOUTH DAKOTA

Total manufacturing and mining employment remained almost stationary at around 10,000 during the period from January 1943 through April 1945. A slight peak occurred in June 1944 and amounted to 10,700, an increase of about 45 percent over the 1939 average. By April 1945 manufacturing employment had fallen 11 percent to 9,500.

Nearly 3 of every 4 manufacturing workers are employed in the food industry. Employment in that industry remained remarkably steady at around 7,400 through July 1944. In August 1944 a gradual decline set in until, by April 1945, employment had receded to 6,700. Part of this decline was seasonal, however.

All of the remaining industries are too small to permit the publication of separate figures. Together, they accounted for an employment total which did not vary from 3,000 by more than 200.

Although figures are lacking, it is highly probable that the greater part of the expansion of manufacturing employment between 1939 and 1943 occurred in the food industry. There was virtually no wartime growth in the metalworking industries. The reconversion problem in South Dakota will not be nearly so serious as in the five larger States of Illinois, Wisconsin, Minnesota, Iowa, and Nebraska.

Methods of Study

The employment estimates for each State, January 1943 to April 1945, were based on two major steps: (1) The establishment of a benchmark, and (2) the application of trend data to the benchmark. The benchmark used was the third quarter of 1943 except for Illinois in which the fourth quarter of 1943 was used.

The benchmark data were obtained from special tabulations of employment in firms subject to the State unemployment-compensation laws, prepared for the Bureau of Labor Statistics by the respective State agencies. The employment totals derived from unemployment-compensation tabulations were adjusted to take into account employment in firms too small to be covered by the unemployment-compensation laws. The upward adjustment was based on data furnished to the Bureau of Labor Statistics by the Bureau of Old-Age and Survivors Insurance of the Social Security Board.

The trend data were obtained from three sources: (1) 1943 annual report of employment and pay rolls of State unemployment-compensation agencies, prepared for the Social Security Board, (2) quarterly reports for 1944 of the State compensation agencies, and (3) 1945 monthly schedules of firms reporting employment and pay rolls to the Bureau of Labor Statistics or to one of its contract agencies. After adjustments for major industry-classification differences, data from the three sources were used to compute link relatives which were applied to the benchmark data.

Firms were classified into industry groups on the basis of their 1939 products. It was therefore necessary to shift firms which had changed products since 1939 back to the industry groups in which they had been classified in 1939. Conversion to war production accounted for virtually all of these product changes.

While the use of the 1939 industry classification tends to understate the change in employment in the munitions industries, the resultant employment estimates are valuable in analyzing changes over a period of time extending from prewar to postwar times. Moreover, many shifts from one industry to another are transitory. Since it is customary to classify plants on the basis of their principal product, a relatively minor shift in the operations of a plant which makes more than one product might result in a major shift in industry classification. This overemphasizes changes in employment in a given industry.

As firms which have changed products since 1939 are classified in their 1939 industry group, and are classified by major product, the State employment estimates do not show the actual number of workers currently engaged in the production of certain items. Nearly all these shifts in classification occurred in the metal-using industries—iron and steel, nonferrous metals, machinery, and transportation equipment. For the other industries, the totals shown are approximately equal to the number of workers actually engaged in the manufacture of these products.

The employment figures include both production workers—equivalent to factory wage earners—and nonproduction workers. No separate State series are available on production workers at present.

The Labor Force in Durable-Goods Manufacture in San Francisco Bay Area, 1943¹

Summary

CALIFORNIA has always been the Mecca of large numbers of migrants. Although many found their way to the agricultural and trade centers of the State, comparatively few established themselves in the San Francisco Bay industrial districts. However, the needs of wartime production and the consequent relaxation of certain traditional industrial restrictions have virtually transformed the economic and employment patterns of the bay region. A conspicuous aspect of the shift has been the increasing integration of persons from other regions into the local work program.

During the summer and early fall of 1943, the Bureau of Labor Statistics made a sample survey of the labor force in the durable-goods manufacturing industries in the San Francisco labor-market area—industries which account for four-fifths of the total workers employed in the bay region. Examination of the personnel records in the plants selected gave an indication of the extent of the influx of workers into the area and of the occupational dislocation resulting from their shifting to unaccustomed types of work. Altogether 47 percent of the workers had migrated from other States or from parts in California outside the bay region; 60 percent were engaged in occupations unrelated to those at which they had been employed prior to their entrance into war plants. Sales clerks had trained for skilled jobs; teachers and students had undertaken manual work; housewives had become truck drivers, tank sealers, laborers, etc. Some workers had been upgraded by the acquirement of single skills; others had been downgraded to more routinized tasks.

Over 90 percent of the whole labor force of the area consisted of white workers; 3½ percent of these were Mexicans. Chinese, Negroes, and Filipinos accounted for the greater part of the racial minorities, with a few Indians, Koreans, and Hawaiians.

Industrial Development, Employment, and Population in the Bay Area, 1940-43

By the fall of 1943 war production throughout the Nation had reached a peak. The mushrooming of industries in the San Francisco Bay area² and the movement of workers from farms and cities into the expanding factory centers caused an extensive shift in industry and employment in the region. Although local economic activity revealed no little diversification prior to the middle of 1940, the trade and service industries (their employment rolls embracing approximately half of the labor force) were of major significance. The bay area served not only as a financial and distributing center for the agricultural production of central and northern California but also as a transit point for coastwise, intercoastal, and foreign shipping.

¹ Prepared in the Bureau's Wage Analysis Division, by Anita H. Bradley of San Francisco regional office. Detailed statistics will be included in a forthcoming bulletin.

² The San Francisco Bay industrial area, as defined here, includes the five counties of San Francisco, Alameda, Marin, San Mateo, Contra Costa, as well as the towns of Benicia and Vallejo in Solano County.

To a considerable extent, the bay area had become the processing center for the inland districts of California as well. Thus, although manufacturing³ was relegated to a second place employing less than 30 percent of the workers, production in "resource-based industries" (such as the processing and packing of fruits and vegetables grown in neighboring counties, the refining of the petroleum discovered only recently in the San Joaquin Valley, etc.) had achieved a substantial development. The production from the heavy industries, on the other hand, was not adequate to meet local needs; a large part of the iron and steel requirements came from eastern plants.

Trade conditions, which in normal times stimulated industrial activity in the bay counties, made the area peculiarly sensitive to economic stresses. Thus, although certain war industries (aircraft parts, chemicals, hardware) had shown a noticeable growth, the employment problem was still critical in the summer of 1940 and 10 percent of the experienced labor force in the cities of San Francisco and Oakland were seeking work. Factories were still operating at less than capacity; per capita wholesale and retail sales, which in active business years were higher than the average for the country as a whole, had made only a slight recovery; cargo loadings and unloadings on the piers still reflected depressed trade conditions.

War needs and the subsequent industrial activity revitalized the area and, at the same time, created a marked alteration in the economic pattern. In the interval between 1940 and 1943, war contracts totaling almost 3 billion dollars not only accelerated the work program but also caused a shift in the products manufactured and in the size of local establishments. In the bay region as elsewhere, articles designed for peacetime consumption, particularly the non-durable manufactures, assumed a minor importance while an increasing proportion of the manufacturing facilities of the area were devoted to the processing of durable goods directly related to war needs. When 1943 ended, the durable manufactures represented 10 times their 1940 value. The most striking gains were made in machinery, electrical and communication equipment, iron and steel products, and shipbuilding. No balanced economic development was achieved, however, for the shipbuilding industry alone employed close to four-fifths of the local labor force.

CHANGES IN DISTRIBUTION OF POPULATION AND EMPLOYMENT

Although shortages of workers occurred in specific fields, the net influx of population and, therefore, of new workers was impressive. The civilian population of the area rose from 1,447,000 reported for April 1940 to an estimated 1,823,000 for November 1943, a total increase of about 26 percent.⁴ According to a census enumeration made for San Francisco as a congested production area, the total resident population in April 1944 was 1,841,000 (also an increase of 26 percent over the April 1940 figure of 1,461,000); this included about 34,000 men in the armed forces who were living away from Army and

³ The 10 principal manufacturing industries in the order of their importance were petroleum refining, motor-vehicle assembly, printing and publishing, canned and dried fruits, meat packing, coffee and spice packing, bread and bakery products, foundry and machine-shop products, paints and varnishes, and electrical machinery and appliances.

⁴ Estimated Civilian Population of the United States by Counties, November 1, 1943 (U. S. Bureau of the Census, Special Report, February 15, 1944), p. 7.

Navy reservations.⁵ While the above figures do not isolate inter-regional migration as a factor in population change, they do assume significance when compared with census data for the 1930-40 decade in which period the net population growth represented an 8-percent increase. The most spectacular increases (103 and 118 percent) occurred in Solano and Contra Costa Counties—in the Vallejo-Benicia districts of the former and in that section of Contra Costa which skirts the bay from Richmond to Pittsburg, Antioch, and Martinez. In both counties, these centers support the major iron and steel production as well as the Government and Kaiser shipbuilding enterprises.

This in-migration plus the entrance into industry of the unemployed and those not previously employed occasioned a very marked increase in the labor force engaged in fulfilling the war contracts. War Manpower Commission estimates of workers in the principal industries reveal a 42-percent increase from 1940 to the spring of 1943;⁶ for the manufacturing industries alone, both durable and nondurable, the increase was about 180 percent.

The greatest recruitment, however, occurred in the field of durable manufactures. Whereas, in 1940, durable manufactures in the five bay counties, excluding Solano, accounted for 42 percent of all factory workers, figures for June 1943 indicated a proportion of 82 percent. In this period the number of workers employed in the durable-goods factories increased 529 percent, as compared with only 5 percent in nondurable-goods plants.⁷

Method and Scope of Survey

The present survey represents an attempt to obtain (at least for the plants studied) a measure of the in-migration of workers into the bay region and of the occupational dislocation caused by their shifting to unaccustomed types of work. The data gathered by representatives of the Bureau during the summer and early fall of 1943 involved a study of the personnel records of 45 plants selected from among the durable manufacturing industries.⁸

The principal factors used in determining the selection of sample plants were plant population and geographical location, that is, the distribution of plants throughout the eight subareas (San Francisco, San Mateo, East Bay, Richmond, Pittsburg-Antioch, Marin, Benicia, and Newark-Niles) included in the San Francisco Bay labor-market area. The sample as finally developed covered approximately 2 percent of the workers in the shipyards and 7 percent of those in the other industries in June 1943. As the proportion of workers covered within the sampled establishments varied, before combining the data it was necessary, in order to restore industry totals, to inflate the plant samples by weighting.

⁵ Characteristics of the Population, Labor Force, Families and Housing, San Francisco Bay Congested Production Area, April 1944 (U. S. Bureau of the Census, August 3, 1944), p. 7.

⁶ The census survey of San Francisco as a congested production area presents data that are not entirely comparable to the above, as the labor force includes all who reported that they worked for pay or profit or assisted without pay in a family business enterprise; the data (which reveal an increase in the labor force approximating 50 percent) thus include proprietors and all self-employed workers.

⁷ California Labor Statistics Bulletin No. 228, July 1943.

⁸ These include establishments in the following industries: Shipbuilding; iron and steel and their products (basic iron and steel, iron and steel foundries, other iron and steel products); nonelectrical machinery; automobiles; ordnance; communications equipment; lumber, furniture, and paper; stone, clay, and glass products; aircraft parts; nonferrous metals; rubber products; electrical equipment.

Characteristics of the Bay Area Labor Force

COMPOSITION OF THE LABOR FORCE

The composition of the labor force indicates the extent to which war production has altered the customary employment. The shift within the labor force has been extreme, reflecting the pull to greener pastures and the push away from doubtful success, that have been constant factors in all migrations. Men and women from diverse walks of life, representing varying degrees of training and education for their peacetime work, converged upon the war industries. Marginal and unemployed workers and the potential and the continual migrants found jobs as well. The removal of certain impediments to employment tapped the reserves of unused and under-used workers belonging to minority groups. Social barriers to the work of women as well as social measures limiting the numbers of aged persons, at least those engaged in factories, were largely nullified. Students newly withdrawn from classrooms added substantial numbers to the labor force.

Whites formed 91 percent of the total labor force at the time of the survey, and of these about 3½ percent were Mexicans.

The minority groups, which included Negroes, Chinese, Filipinos, Indians, Koreans, Hawaiians, etc., comprised 9 percent of the total. Nine-tenths of their total number consisted of Negroes, Chinese, and Filipinos. The proportion of Negroes in the *civilian* population of the bay counties in 1943 (5.6 percent) was many times greater than in 1940, when according to the census they constituted somewhat more than 1 percent. The in-migration of Negroes was so considerable that by April 1944 their proportion in the *total resident* population of the bay area had risen to 3.5 percent.⁹ The remaining minority groups formed 3 percent of the workers covered in the Bureau's survey, or about the same as reported in the 1940 census, but by 1944 had fallen to 2 percent of the resident population. Among these other groups the shifts that occurred were largely on an occupational rather than territorial basis, and their numbers appear to have been swelled very little by migration from other areas.

Members of minority groups had obtained employment in a majority of the plants studied. Many such workers were in the newer industries, such as aircraft manufacture, and a few were even in the long-established plants engaged in machine-tool production. The largest groups, however, were to be found in industries like shipbuilding, which formerly had accepted them only for certain laborer occupations. The available data do not indicate the extent to which such workers have been upgraded within the plants, but it is not unlikely that the minority groups will retain a place in certain industries and occupations.

WOMEN IN THE LABOR FORCE

During the war women entered jobs to a degree unprecedented in bay area industry. They comprised one-fifth of the labor force employed in the establishments included in the present survey. This was in marked contrast to the numbers engaged in durable manu-

⁹ Characteristics of the Population, Labor Force, Families and Housing, San Francisco Bay Congested Production Area, April 1944 (U. S. Bureau of the Census, August 3, 1944), p. 8.

factures throughout the bay area a year earlier, when women constituted but 3 percent of the total.¹⁰ Whereas almost 21 percent of the known whites were women, female workers totaled but 18 percent of the minority groups. This slight difference may be attributed, in part, to the fact that large numbers of migrants, particularly among the racial minorities, were unattached men and even more to the response to industry needs by white women not previously in gainful occupations.

AGE DISTRIBUTION OF WORKERS

The major recruitment appeared to have been among the younger workers. Although the median age for women was 29.6 years, almost 60 percent of the entire group fell between the ages of 20 and 34 and 10 percent were under 20—in other words, 70 percent were less than 35 years of age. Among the nonwhite races, the teen-age group alone included 19 percent of the workers. Other substantial proportions of the recruits consisted of schoolgirls, young women whose husbands were in the armed forces, and those with school-age children.

Comparison with the census data listing ages of women in the labor force of the two metropolitan areas (the cities of San Francisco and Oakland), where close to four-fifths of the bay-area workers were employed, reveals the extent to which war production had modified the 1940 age distribution. The median age (36) for women at work in the two cities in April 1940 was about 6 years greater than that revealed by the 1943 survey. At the earlier date 45 percent of the women were in the 20–34 age groups and but 4 percent in their teens; thus, more than half of the women were 35 or over. The census data, of course, include women who operated small business enterprises, such as grocery and variety stores. These women accounted for about 10 percent of the employed females; in a great number of cases, they assisted their husbands or had been forced to assume support of the household at an age when, under the plant employment policies then existing, their chances of employment in industry were slight. It is probable that the older women clung to their prewar pursuits or remained out of the labor market altogether, work opportunities having been opened to other members of the family.

The men covered in the Bureau's survey appear to have been recruited from a much greater variety of pursuits. Their age distribution, therefore, did not present such striking deviations from the census. The median age for those included in the survey was 38; for those in the census, 40. In both reports, the 25–44 year classifications comprised roughly half of the labor force.

Six percent of the men at work in the sample plants gave their ages as 60 or over. The 1940 census figures placed 9 percent of the male labor force in the cities of San Francisco and Oakland within these age groups, but included the self-employed and the employers who represented about 15 percent of the total number of male workers; the numbers in manufacturing were negligible, constituting somewhat more than 1 percent. On the other hand, the older persons in the Bureau's survey were all employed in the durable-goods manufacturing industries, in a varied list of occupations.

¹⁰ Employment of Women in California, August 3, 1943 (California Division of Labor Statistics and Law Enforcement), p. 2.

WORKERS' DEPENDENTS

The family with numerous children does not appear typical of the war worker of the present survey. Almost one-third of the individuals surveyed reported no dependents at all. So substantial a group was only partially to be explained by the relatively large numbers in the lower age brackets. The increase in the numbers of women, over two-thirds of whom listed no dependents, as well as the interregional migration of unattached males, were no doubt important factors. It is also probable that some of the workers had dependents, in the homes from which they migrated, who were not reported on the company personnel records.

Although 62 percent of the workers indicated responsibility for the care of dependents, for almost half of these a spouse was reported as the dependent person. Most of these were wives; the number of women reporting husbands unable to assume the support of the family because of invalidism, age, unemployment, etc., was very small.

In a fourth of the households, the normal family unit consisted of the head, a spouse, and dependent children. A small number reported as many as 10 or 11 children, but in most cases there were but 1 or 2. The larger families were in the Mexican and Chinese groups. Households in which all of the dependents were children comprised nearly a fifth of those headed by female breadwinners.

"PRESENT" OCCUPATION

Fully nine-tenths of the workers were in the skilled, semiskilled, and unskilled manual occupations. In 1940 somewhat more than half of the workers were reported in these groups.

There were interesting, though not unexpected, sex differences in the occupational distribution. Almost two-thirds of the women were engaged in either semiskilled (44 percent) or clerical (20 percent) jobs; among the men the corresponding percentages were 25 and 4. On the other hand, 46 percent of the men were performing skilled tasks, as against only 9 percent of the women. The term "skilled" should doubtless be qualified, since it represented a wide range of worker proficiency aside from unequal individual aptitudes. Many workers had acquired but a single skill. Others, holders of journeyman cards, had come from widely scattered areas where experience and skill standards required for the journeyman rating varied.

The range and variety of jobs held by women revealed the effect of the lowering of economic and social barriers. Women were found in jobs requiring manual dexterity, those demanding physical effort only, and those the nature of which necessitated working to fairly close tolerances. Thus, they were working as inspectors, painters, shipfitters, electricians, welders, machinists, assemblers, truck drivers, tank sealers, loaders and unloaders, and even as common laborers. Some of these jobs required little or no training, but others (such as that of machinist) required fairly long apprenticeship periods, even under relaxed war standards. It is of particular interest that the largest single groups (constituting 27 percent of all women) were recruited into the electrician and welder occupations—a small number as journeymen but by far the greater group as trainees and helpers.

There was a considerable scattering of white women in a broad range of jobs, a very large number appearing in the clerical occupa-

tions. The racial minorities, however, were markedly concentrated in a limited number of occupations. Thus, 63 percent of the Negro women were engaged as welder trainees and laborers. Of the women in the "other" racial groups, 47 percent were employed as electrician trainees and laborers; Chinese and Filipino women, working as laborers, constituted the majority of these. In contrast to this, only 6 percent of the white women were engaged as laborers, 9 percent worked as welder trainees, and 9 percent as electrician trainees.

The distribution of the men within the several skill categories also afforded some striking group contrasts. No representatives of the racial minorities appeared in the professional posts and very few in the clerical. Just under half of the whites were employed in skilled jobs, substantial numbers as welders, electricians, machinists, pipe fitters, and shipfitters. In contrast to the 42 percent of the whites, the semiskilled and unskilled occupations included fully four-fifths of the Negroes and 71 percent of the "others."

While members of the minority groups were found as electricians, shipfitters, painters, welders, flangers, and plate hangers in fair numbers, they appeared most commonly in the trainee and helper classifications. These latter classifications included about half of the minority groups, as compared with a fourth of the white workers.

LENGTH OF EMPLOYMENT

A large number of workers had been in the jobs scheduled in the Bureau's survey during the whole period since their arrival in the bay area. However, it was not always possible to establish this fact satisfactorily. Therefore the data on length of time in the "present" job, although possibly having some validity as a barometer of the recency of the in-migration, are mainly a clue to the shifting about of workers from one job to another. Although at the time of the survey the largest single group had been employed in their "present" jobs from 7 to 12 months, the fact that over half (52 percent) of the entire group had been so employed for 6 months or less is significant when it is recalled that the data refer to mid-1943 and to the climax of a 3-year war production period.

As was to be expected, the proportion of women (72 percent) employed for half a year or less was very much greater than that disclosed for the men (47 percent). Not only did home duties cause a greater labor turn-over among women but they appear also to have retarded the entrance of women into factories. In the group studied, white women were apparently given work before those from the "other" racial groups. None of the women belonging to the minority groups had been at their "present" jobs for over a year, whereas about 8 percent of the white women reported more than 12 months of service.

Over three-fourths of the men had been at the scheduled jobs for periods not exceeding 1 year, and as already indicated, almost half for periods of 6 months or less. In general, workers in the less-skilled jobs had been at their "present" posts for shorter periods than had those whose work performance represented considerable training. For example, the largest group with over a year's service was found among the professionals, more than two-fifths of whose numbers fell into this category. The most fluid group, on the other hand, was the

unskilled which reported only 12 percent as having completed over a year of work in the one plant.

The short-term worker was usual, irrespective of the distance from which the individual had come. Even among those who gave their homes as one of the Pacific Coast States, from 42 to 77 percent had been at their present jobs for half a year or less. The brevity of the work period was less to be explained by withdrawals for the armed services than by job changes caused by individual plant factors and the worker's own standards of well-being as reflected in better housing, more attractive pay, etc.

EDUCATION OF WORKERS

Education, in terms of the number of school years completed, reflected conditions during the thirties, as well as the California school laws requiring full-time attendance till the age of 16. The years of schooling reported in the Bureau's survey showed a striking similarity to the general 1940 area pattern, in spite of the fact that by 1943 war had made the Nation the local labor pool. The similarity no doubt resulted from the fact that, with depression general throughout the country in the thirties, the decreased job opportunities were somewhat counterbalanced by Government assistance which kept many persons in school for longer periods of time.

Information on the number of school years completed was not available for 38 percent of the total number in the present survey. Almost half of the known group, however, reported some training of senior high school grade. The median number of school years for the entire group was $10\frac{1}{2}$, the women having enjoyed a somewhat longer student period than the men. Differences among the various population groups were not considerable; men and women among the whites averaged 8 months' more schooling than did the members of the "other" racial groups.

It was to be expected that the professional and clerical workers would report longer periods of time spent at their studies. In general, however, the same may be said of substantial proportions of the skilled workers. Thus, 45 percent of the men with some university or college training were performing skilled jobs, as compared with 32 percent of the men reporting from 1 to 6 years of schooling. The individual occupations presented some interesting variations. For example, a majority of the painters, boilermakers, joiners, and riggers reported from 1 to 6 years of education. On the other hand, the larger groups of electricians and machinists were observed to have had some high-school or college work.

Although the proportions of workers in the semiskilled and unskilled jobs tended to diminish as the amount of education increased, large groups of individuals with high-school or higher levels of training were performing jobs requiring little skill. Almost a fifth of the men who had spent some time in college were employed as trainees and helpers.

The greatest concentrations of women, as has been indicated, were observed in the clerical, semiskilled, and unskilled groups. The clerical jobs absorbed from 21 to 58 percent of those with some senior high school or more advanced schooling. However, in these same education groups, there were large numbers (from 36 to 66 percent)

in the combined semiskilled and unskilled categories. The largest single groups were engaged in trainee and helper occupations.

While the 1940 census data had reference to the number of school years completed by persons 25 years of age and over, and were therefore not entirely comparable to those of the Bureau's survey, such a comparison is not without significance, as four-fifths of the persons covered by the survey reported their ages as 25 or over. The men enumerated in 1940 had spent an average of 9.3 years at school; the women, 10.6; in both cases this was from 5 to 6 months short of the schooling reported in the Bureau's survey.

School attendance throughout at least a part of the senior high school period is typical of California and certain other States, but is not typical of some of the areas from which large numbers of migrants have come. In view of this, it is not unlikely that the migrants who came into the bay area as war workers included substantial numbers of those whose schooling was well beyond the average for their home districts.

RATES OF PAY

The concentration of workers at the various wage rates followed closely their distribution in terms of job skills. Nevertheless, comparison of hourly rates current in shipyards with those paid in the other industries presented some striking contrasts. As four-fifths of the workers were employed in the shipyards, their scales dominated the wage-rate distribution. Production-line techniques resulted in marked concentrations of workers at rates prevailing for certain numerically important jobs, the largest single groups occurring at the intervals of 95-97½ cents and of \$1.17½-\$1.20 per hour. The lower rates were those generally reported for the great numbers of helpers and other unskilled workers, while the higher merely reflected the large proportion of journeymen. A somewhat smaller, though still notable, concentration in the \$1.05-\$1.07½ range corresponded to the size groups reported as trainees. Within the white and minority groups, variations in pay followed the job-distribution pattern.

Separate tabulation of shipyards and other industries revealed a noticeably more-balanced distribution among the wage-rate intervals for the other industries. Among them the largest concentrations, although representing but small proportions of the total, appeared at the 85-87½ and the 95-97½ cent intervals. Since the white workers were numerically preponderant, the largest groups of workers were naturally in these earnings classes. Some 33 percent of the whites received rates above \$1.17½ as compared with 47 percent in the shipyards.

The lower wage level in the other industries was, however, much more apparent among the minority groups. Whereas 64 percent of the Negro men in the shipyards received \$1.05 or more per hour, only 19 percent in the remaining industries were in this earnings group; for the other nonwhite groups the percentages were almost 60 (shipyards) and 26 (other plants). The differences in rates paid in the shipyards and other industries may largely be attributed to the fact that many of the latter have long-established wage and employment policies. Some of their employees have been in service for considerable periods of time and have accepted lower rates of pay because they look toward permanent jobs beyond the war period. The fact that wage rates for workers in the racial minority groups did not show the same

upswing as those in the shipyards can, no doubt, be traced to the fact that few such workers had found employment in these establishments before the outbreak of war and when they did, it was usually in jobs requiring a negligible skill.

Occupational Shifts

The labor requirements of war plants as well as the pressure of economic necessity and the consequent shifting of individuals from one type of work to another resulted in very considerable changes in the occupational distribution of the labor force in the bay area. Fully 60 percent of the workers in the Bureau's survey were then employed in jobs unrelated to their typical work. For purposes of the survey, "typical work" or customary occupation was defined as that at which the individual spent a major portion of his time prior to his entrance into war plants. The job immediately preceding his present employment was not considered his typical work unless it coincided with the notation under customary occupation. In a great many instances, therefore, the carry-over from the old job to the new consisted largely of the individual's versatility and of his skill in adjusting himself physically as well as psychologically to changing work requirements. However, a substantial proportion (21 percent) were working in jobs identical with their customary work. Only a small number (6 percent) were in occupations involving skills not only closely related to those of their typical work but also necessitating the use of similar tools, as for example, a machine-tool operator formerly on a drill press who subsequently served at a lathe, or a welder trainee who had progressed to a welder journeyman.

A close correlation was observed between the degree of work change and the length of employment in the "present" job. Close to 40 percent of those in identical jobs had been employed in the scheduled plants for more than a year; of these the greater number had been in the plant longer than 3 years. However, as the present and typical occupations became more dissimilar, the proportions at work for periods longer than a year fell off. Thus, 24 percent of those persons performing work related to their customary occupations had been in the same plant for more than 1 year. On the other hand, only 13 percent of the number in unrelated jobs had over a year's service. Possibly the late recruits included some marginal workers, as none of those previously unemployed had held their "present" jobs for longer than a year.

The largest single groups within the "present" skill categories had maintained their former skill levels in spite of the fact that, in many instances, the work performance characteristic of the present and typical occupations had altered radically. Thus, even when the skill levels remained unchanged, complete functional shifts were not unusual within the various groups. For example, among the 54 percent of those in the professional and managerial positions who had formerly been engaged at the same work level were individuals whose work bore little resemblance to that customarily performed. In illustration, a former teacher of history was serving as assistant personnel director; a former manager of a small branch bank reported his present work as that of an accountant. Similarly, among the 42 percent of the skilled workers who were performing skilled war jobs were many automobile mechanics who had temporarily become welders.

Among the new workers on machine production were white-collar workers, professional people, students, and homemakers who had previously withdrawn from the industrial field. Fully two-fifths of those who had worked in the wholesale and retail trades as outside or inside salespersons were discharging skilled tasks of a considerable variety, the largest single group working as shipfitters. Former professional persons (ministers, teachers, artists, etc.) were to be found in a wide range of jobs, and over a third were performing skilled work in which the welding and shipfitting occupations were heavily represented. Over half of those who had described themselves as housewives and nearly 40 percent of those who had come from the farms were filling semiskilled jobs. Almost three-fourths of the student group were in the semiskilled and unskilled classifications; the numbers working as helpers and laborers were particularly large among the Negro and Mexican students.

Many workers improved their occupational status through shifts made possible by war opportunities. Some 54 percent of those whose typical work was unskilled had shifted to skilled and semiskilled jobs. This upgrading, though in many instances only to a dead-end job, represented the acquirement of single skills which placed the worker, after a brief training period, in a journeyman category. For example, large numbers of welders had generally replaced riveters in the large shipyards and were able to learn within a few weeks the limited duties required of them. In other occupations as well, the assembly-line techniques introduced in the shipyards had lessened the need for workers with multiple skills.

On the other hand, some downgrading took place, notably among the skilled groups. The workers thus affected included men from other areas who found themselves forced into less-skilled jobs partly because of differences in requirements in their customary occupations. Even more significant was the downgrading observed among the minority groups; fully a fourth of the Negroes and over four-fifths of the Chinese who reported their typical occupations as skilled held semiskilled or unskilled jobs in the local war plants. However, in the skilled groups as a whole the majority of individuals retained their former work levels.

Migration of Workers to the Bay Area

EXTENT OF MIGRATION

In spite of travel difficulties, inadequate housing, limited school facilities, etc., the rapid economic expansion in the bay area attracted a phenomenal influx of workers; 32 percent of the labor force included in the present survey came from outside the State, and an additional 15 percent from areas within the State but outside the bay region. Thus, nearly half of the workers were new to the bay area, being drawn there by higher wages, steadier work, the opportunity to acquire a greater work skill, a more advantageous economic and social environment, etc.¹¹

¹¹ The census report on San Francisco as a congested production area indicates that approximately two-thirds of the in-migrants came from other States and one-third from elsewhere in California (tables 13, 14; p. 14). Ratios for the above groups in the survey approximate those of the census.

According to the census, the in-migrants represented 28 percent of the total resident population. However, the total resident population as a base for the calculation of the proportion of in-migrants can hardly be considered comparable to the selected segment used in the present survey.

However, certain very significant differences in the extent of the in-migration were apparent in the eight subareas, each of which was a focal point in the production of specific war materials.¹² Since the increased industrial activity has been concentrated sharply on ship construction, the influx of workers was greatest in those areas where shipbuilding activity grew most rapidly and caused labor shortages that necessitated an active recruitment campaign throughout the country. Most significant in this connection was the Richmond area which was the center of the most extensive local shipbuilding program. There, approximately two-thirds of the workers were immigrants, 51 percent coming from other States and 15 percent from other sections of California. Marin County (also a shipbuilding center) and the East Bay district (which includes the cities of Oakland, Alameda, and Berkeley) also relied heavily on outside workers. In San Francisco and San Mateo Counties, on the other hand, the proportions of newcomers, while substantial, were relatively small (San Francisco 24 percent; San Mateo 29 percent). Not only do these counties contain long-established industries but they are closest to the major labor pool and thus have been able to obtain workers resident in their immediate vicinities.

The comparatively isolated nonmetropolitan Pittsburg-Antioch and Newark sections demonstrated yet another aspect of the migration movement. The proportionate inflow of workers from distant areas was low there, partly because the towns were small and sufficiently withdrawn from the conveniences and attractions of the large metropolitan centers to make daily commuting from plant to home impracticable and partly because gaps in the labor force were filled by workers recruited from the surrounding rural areas.

MOBILITY OF LABOR IN THE BAY AREA

The population in California has always been predominantly urban, the prewar agricultural population comprising, according to the 1940 census, only 10.5 percent of the inhabitants of the State as compared with 18.5 percent for the entire Nation. The influx of war workers has, however, accelerated the accustomed tempo of urbanization to a point well beyond the absorptive capacity of the area in the years preceding the outbreak of war.

Aside from the migrants within California and from the other Pacific Coast States (67 percent of the total), largest accessions were from the West South Central and West North Central States, which contributed 10.5 and 8.2 percent, respectively. According to an estimate made by the War Food Administration, the net out-migration from these regions during the 1940-43 period ranged from 1.8 to 14.7 percent for the States in the West South Central region and from 6.5 to 16.4 percent for those in the West North Central region.¹³ The migration from these States appears to be a continuation of the trend observed in these same two areas during the past three decades.

In most of the bay area subregions, the majority of the newcomers were from two regions indicated above, particularly from Oklahoma, Arkansas, and Texas and from Iowa, Minnesota, and Missouri. From 19 to 35 percent of the workers in the Richmond, Marin, Newark,

¹² The subareas have been used to indicate the place of work and not of residence of the individuals in the survey.

¹³ Highlights of Population Shifts (Office of War Food Administration, March 1944).

and East Bay sections listed States in the West Central regions as their homes. A substantial group (8 percent) came to the East Bay from the Mountain States, largely from Colorado and New Mexico.

The movement to jobs on the west coast has not represented an exodus from the rural to the urban areas but has been primarily a migration to wartime industrial centers from other cities and towns. Thus, the newcomers were largely accustomed to city living; nearly 46 percent of the workers covered in the Bureau's survey were from cities with populations of 150,000 or more. Among the "other" racial minority groups coming from the large metropolitan centers were two-thirds of the Chinese and Filipinos, most of whom had been established in the trade and service industries at the outbreak of the war. Of course, the numbers from the rural areas (districts with fewer than 2,500 inhabitants) represented a substantial portion of the total group (14 percent).¹⁴ The only marked deviation was found among the Mexican whites, 27 percent of whom had come from farm districts. For the most part, migration had afforded these rural workers their first opportunity to establish themselves in the life of an urban industrial center.

The great preponderance of persons in all work categories was recruited from California. This appears to demonstrate the extent to which the local reserves were absorbed into the bay area labor force first. No doubt, many who had come from the Middle West in the thirties moved from the agricultural to the manufacturing districts after 1940. These same figures also suggest that the greater shifting from place to place as well as from one occupation to another occurred within the State itself. While substantial groups of housewives, students, and self-employed persons moved from the West South Central and West North Central States, it is of interest to note that about a third of the farm workers and over a fourth of those with no previous employment came from these same two regions. The professional and managerial occupations were well represented, the same group of migrants including almost 16 percent of all those who gave the above categories as their typical work. An important motive in the shifting of many of these workers was the desire to escape the hardships occasioned by climate, soil, and other phenomena, by the limited work opportunities, and by low wages in a very moderately industrialized area.

¹⁴ This checks closely with the 15 percent of the bay area resident population listed in the Census report on San Francisco as coming from farms.

Wartime Expansion of the California Airframe Industry¹

CALIFORNIA is the principal airplane-producing State in the Nation; during the war approximately 20 percent of its manufacturing labor force was engaged in one phase or another of aeronautical production. The State provided aircraft not only to this country's Army, Navy, and commercial airlines, but to many foreign nations as well. The gamut of models is complete, including bombers, fighters, transports and trainers. In the 4-engine bomber class, California plants have produced the Liberator (B-24), the Flying Fortress (B-17), and the Catalina patrol bomber (PBV). The twin-engined bomber (B-25) used by General Doolittle and his men on the initial Tokyo raid is also a California product. Among the fighting planes are the famous 2-engine P-38 (Lightning) and the 1-engine P-51 (Mustang). The transport field has not been neglected. The C-47 (Skytrain) is the 2-engine transport that has done yeoman service for the Army and is credited with the outstanding task of transporting men, equipment, and heavily laden gliders during the invasion of the European continent. For overseas operations, the Air Transport Command relied heavily on the C-54 (Skymaster), a 4-engine transport. This listing is by no means complete. It, nevertheless, illustrates why California accounted for 33 percent of total airframe weight accepted when production reached its peak in early 1944.

California's aircraft are produced in the southern part of the State, with concentration in the Los Angeles and San Diego areas. Strict interpretation requires use of the term "airframe" rather than "aircraft" when referring to California, since the State's only producer of aero-engines ceased to be a prime contractor in mid-1943, and at no time were propellers made in the State. In June 1945 there were seven facilities in the Los Angeles area and two in the San Diego area which may be properly termed airframe plants. Most of these had established "feeder plants" in the surrounding areas—shops specializing in a small phase of the production job which, upon completion, is forwarded to the main plant for installation. This technique was resorted to in order to increase production floor space, but more important, to utilize areas where labor was still available. In this way workers could be employed who ordinarily would not have been engaged in airplane manufacture. The airframe facilities and their feeders have been supplemented by plants producing subassemblies, instruments, and parts—all combining to make up the aircraft community. However, local suppliers provided only a fractional part of

¹ Prepared in the Bureau's Division of Construction and Public Employment by Leonard G. Levenson. Employment data used in this article were obtained from tabulations of the Aeronautical Monthly Progress Reports made by the BLS in cooperation with the Army Air Forces. The data represent employment at the end of the month.

total requirements. All types of items—engines, propellers, subcontractor assemblies, parts, instruments, accessories—from all sections of the country funneled through the airframe plants, and the handling of these, together with their own fabrication and assembly operations, placed upon them the burden of a coordination job of first magnitude.

At the beginning of 1940, California airframe plants employed approximately 30,000 workers, but by the end of the year this figure more than doubled, reaching 70,200 (table 1). In 1941 employment again more than doubled. By the time of the Pearl Harbor attack, therefore, 151,500 persons were at work in these plants—5 times the early 1940 figure.

TABLE 1.—Total Employment in Prime Contracting Airframe Plants in California and United States, January 1940–August 1945

Year and month	Airframe employment (end of month) in—			Year and month	Airframe employment (end of month) in—		
	California	All other States	United States		California	All other States	United States
1940: January ¹	30,000	29,000	59,000	1942: November....	237,488	443,047	680,535
February.....	32,195	29,930	62,125	December.....	254,377	475,618	729,995
March.....	34,337	31,181	65,518	1943: January.....	264,214	506,257	770,471
April.....	36,951	34,165	71,116	February.....	272,249	527,806	800,055
May.....	40,366	36,880	77,246	March.....	279,310	540,538	819,848
June.....	44,882	40,862	85,744	April.....	278,678	560,671	839,349
July.....	49,086	44,713	93,799	May.....	276,518	579,726	856,244
August.....	53,159	47,871	101,030	June.....	279,529	601,610	881,139
September.....	56,587	52,123	108,710	July.....	280,314	620,270	900,584
October.....	61,996	55,641	117,637	August.....	276,024	631,074	907,098
November.....	66,477	59,024	125,501	September.....	272,491	652,381	924,872
December.....	70,172	63,482	133,654	October.....	273,096	658,013	931,109
1941: January.....	77,107	69,090	146,197	November.....	270,957	665,509	936,466
February.....	80,064	73,490	153,554	December.....	263,893	658,966	922,859
March.....	85,051	76,180	161,231	1944: January.....	257,541	655,550	913,091
April.....	91,553	80,687	172,240	February.....	250,976	647,889	898,865
May.....	96,269	86,865	183,134	March.....	242,506	632,917	875,423
June.....	103,628	96,632	200,260	April.....	234,895	621,430	856,325
July.....	112,976	105,949	218,925	May.....	224,866	615,485	840,351
August.....	120,663	117,886	238,549	June.....	214,774	596,849	811,623
September.....	128,692	127,104	255,796	July.....	209,610	587,366	796,976
October.....	138,971	137,839	276,810	August.....	200,447	568,835	769,282
November.....	143,895	147,679	291,574	September.....	189,847	551,282	741,129
December.....	151,546	161,751	313,297	October.....	187,074	534,375	721,449
1942: January.....	159,312	182,291	341,603	November.....	184,823	530,598	715,421
February.....	168,869	190,800	368,669	December.....	182,712	530,369	713,081
March.....	171,069	219,209	390,278	1945: January.....	184,362	539,488	723,850
April.....	173,730	239,197	412,927	February.....	184,152	536,232	720,384
May.....	178,113	261,075	439,188	March.....	180,927	523,126	704,053
June.....	186,054	284,711	470,765	April.....	174,024	505,015	679,039
July.....	196,041	309,233	505,274	May.....	155,794	466,245	622,039
August.....	203,549	349,691	553,240	June.....	142,167	423,754	565,921
September.....	213,475	376,028	589,503	July.....	136,676	395,301	531,977
October.....	224,767	410,289	635,056	August ²	93,247	162,126	255,373

¹ Estimated.

² Preliminary figures.

The year 1942 witnessed a 67-percent gain, which brought total employment to 254,400 by December (table 1). Major expansion had been accomplished by that time, even though the peak was not reached until mid-1943. This is evident from the monthly net gain in employment. During 1940 the net monthly increase averaged 3,650 workers. The corresponding figure for 1941 was 6,800, but the maximum average increase was reached in 1942 with 8,600. The all-time record for any one month occurred in December 1942, when the number at work increased from the previous month by 16,900. Peak

employment was approached both in March and June 1943, but it was actually attained in July of that year, 4 months earlier than in the rest of the country. California's July 1943 airframe employment was 280,300, almost 10 times the number at work when expansion began. For the 3 succeeding months, the airframe labor force approximated 275,000. It should be noted that these figures refer to prime contracting plants only, and do not include a considerable volume of California employment in plants making aircraft parts and subassemblies.

The decline in aircraft employment in California followed the same general pattern experienced by the industry in other areas, though it started a few months earlier. A decrease was registered each month, beginning in November 1943 and extending throughout 1944. More than 97,000 persons were off the pay rolls by December 1944, when employment was down to 182,700 or two-thirds of the peak level. The downward trend was temporarily halted in January 1945. However, the decline began again in February and continued moderately through April. The 18,000 drop in May was a direct result of cut-backs which became operative with VE-day, and by the end of June the State's airframe employment was down to 142,200. Following VJ-day, aircraft employment dropped precipitously as military contracts were canceled or reduced. California aircraft employment declined from 136,700 in July to 93,200 at the end of August, a reduction of about a third.

Because of the concentration of the State's airframe facilities in only two labor markets, the areas affected were under extreme pressure soon after the outbreak of the war. Contracts for an unprecedented number of airplanes to be delivered as quickly as possible resulted in a scramble for manpower by the airframe plants themselves. The competition was accentuated by the needs of neighboring establishments, both aeronautical and nonaeronautical. The difficulties confronting California plants may be gauged from the fact that the San Diego Area was considered a critical labor-shortage area by the War Manpower Commission at the inception of its classification procedure in January 1943. Los Angeles was placed in this same category by August 1943, and both areas remained in this classification continuously until after VE-day. The situation was further complicated by the drafting of men for military service. The removal of men already in the plants became so serious that the airframe producers, with the aid of the AAF, succeeded in obtaining a temporary stay of induction for necessary workers in November 1943 to help keep production lines manned.

The enormous growth of California's airframe employment would have been impossible had it not been for the extensive recruitment and training of women workers. Faced with the manpower squeeze earlier than the rest of the industry, the California plants hired women workers sooner and in larger numbers than anywhere else. There were fewer than 10,000 women workers in California airframe plants in 1942 (table 2), but by June 1943 the employment of women reached peak when 120,700 (12 times as many) were at work. From January 1943 until VE-day 40 percent or more of the State's airframe employment consisted of women. During 10 months of this period (February–November 1943), the proportion approximated 43 percent. Until June 1945 total employment of women workers was proportionately higher in California than elsewhere. The State also had one

large facility in which, throughout 1943 and 1944, there were more women workers than men.

While employment of women in California airframe plants was still at the 40-percent level in April 1945, their number was down to 69,400. By June their employment had dropped to 52,300, or 37 percent of total. Thus until VE-day, women maintained their relative position, with their number declining only in proportion to the general decrease in employment. A sharp drop in the proportion of women employees occurred after the Japanese surrender, as increasing lay-offs brought the number of women down to 30.8 percent of the total.

TABLE 2.—*Employment of Women in Prime Contracting Airframe Plants in California and United States, January 1942–August 1945*

Year and month	Number of women employed (end of month) in airframe plants in—				Women as percent of total employed in—		
	California	All other States	United States	California as percent of United States	California	All other States	United States
1942: January.....	9,689	8,967	18,656	51.9	6.1	4.9	5.5
February.....	12,254	11,972	24,226	50.6	7.3	6.0	6.6
March.....	13,815	16,633	30,448	45.4	8.1	7.6	7.8
April.....	16,532	21,910	38,442	43.0	9.5	9.2	9.3
May.....	19,843	28,375	48,218	41.2	11.1	10.9	11.0
June.....	25,879	37,428	63,307	40.9	13.9	13.1	13.4
July.....	32,282	47,064	79,346	40.7	16.5	15.2	15.7
August.....	39,768	61,198	100,966	39.4	19.5	17.5	18.2
September.....	52,918	78,433	131,351	40.3	24.8	20.9	22.3
October.....	67,094	101,899	168,993	39.7	29.9	24.8	26.6
November.....	82,632	119,910	202,542	40.8	34.8	27.1	29.8
December.....	97,302	143,293	240,595	40.4	38.3	30.1	33.0
1943: January.....	107,953	166,295	274,248	39.4	40.9	32.8	35.6
February.....	115,848	179,805	295,743	39.2	42.6	34.1	37.0
March.....	119,773	189,356	309,129	38.7	42.9	35.0	37.7
April.....	119,637	199,692	319,329	37.5	42.9	35.6	38.0
May.....	118,832	209,908	328,740	36.1	43.0	36.2	38.4
June.....	120,691	219,597	340,288	35.5	43.2	36.5	38.6
July.....	119,787	227,707	347,494	34.5	42.7	36.7	38.6
August.....	118,815	234,841	353,656	33.6	43.0	37.2	39.0
September.....	118,312	245,640	363,952	32.5	43.4	37.7	39.3
October.....	118,693	249,008	367,701	32.3	43.5	37.8	39.5
November.....	115,218	255,044	370,262	31.1	42.5	38.3	39.5
December.....	109,887	248,936	358,823	30.6	41.6	37.8	38.9
1944: January.....	104,856	246,653	351,509	29.8	40.7	37.6	38.5
February.....	102,191	243,837	346,028	29.5	40.7	37.6	38.5
March.....	98,527	240,769	339,296	29.0	40.6	38.0	38.8
April.....	95,544	237,772	333,316	28.7	40.7	38.3	38.9
May.....	93,826	237,469	331,295	28.3	41.7	38.6	39.4
June.....	89,994	234,268	324,262	27.8	41.9	39.3	40.0
July.....	87,735	231,320	319,055	27.5	41.9	39.4	40.0
August.....	83,660	224,039	307,699	27.2	41.7	39.4	40.0
September.....	78,407	217,684	296,091	26.5	41.3	39.5	40.0
October.....	77,577	210,680	288,257	26.9	41.5	39.4	40.0
November.....	76,373	209,096	285,469	26.8	41.3	39.4	39.9
December.....	74,702	207,001	281,703	26.5	40.9	39.0	39.5
1945: January.....	74,802	207,687	282,489	26.5	40.6	38.5	39.0
February.....	74,440	204,912	279,352	26.6	40.4	38.2	38.8
March.....	72,833	198,947	271,780	26.8	40.3	38.0	38.6
April.....	69,358	191,668	261,026	26.6	39.9	38.0	38.4
May.....	58,893	175,157	234,050	25.2	37.8	37.6	37.6
June.....	52,295	156,670	208,965	25.0	36.8	37.0	36.9
July.....	49,892	145,485	195,377	25.5	36.5	36.8	36.7
August ¹	28,747	49,653	78,400	36.7	30.8	30.6	30.7

¹ Preliminary figures.

Because of California's pre-eminence in the airframe field, it was only natural for its plants to receive extensive contracts when war was declared. Not only were existing facilities booked to capacity, but extensive plant expansion was undertaken in order to take ad-

vantage of a going organization to achieve maximum deliveries in a minimum of time. The concentration and coastal location of these plants was a matter of grave concern, however, since attack by Japanese carrier-based airplanes was by no means beyond the realm of possibility. Military strategy called for location of additional plants in the interior of the country. Successful culmination of this plan not only created a secondary line of defense on the production front, but also made available additional plant facilities and labor supply without which the aircraft program could never have been accomplished.

Consequently, the proportion of total airframe employment in California began to decline materially, beginning late in 1941. Throughout 1940 and most of 1941, employment in California represented more than 50 percent of the airframe industry's total. It is true that the number at work in the State increased steadily until July 1943, but as the new plants in the interior of the country came into production, the relative position of the State became less important. California's portion of total employment declined gradually and without interruption during the 3-year period extending from September 1941 to September 1944 (table 3). In December 1941, California accounted for 48.4 percent of all airframe employment, but this figure was down to 34.8 percent by December 1942. One year later, December 1943, the proportion had declined to 28.6 percent, but the one-quarter level was not reached until September 1944 (25.6 percent). The State continued to maintain approximately a fourth of all airframe employment until August 1945, when, as a result of the more severe VJ-day cut-backs elsewhere in the country, the California proportion increased to 36.5 percent of the United States total.

TABLE 3.—Total Employment in Prime Contracting Airframe Plants Operated under California Management, January 1940–August 1945

Month	Employment (end of month) in California - operated plants in—			Total employment, United States airframe industry	Percent of total industry employed in—	
	California	Other States	United States		California plants	California-operated plants ¹
1940: January ²	30,000	-----	30,000	59,000	50.8	50.8
February.....	32,195	-----	32,195	62,125	51.8	51.8
March.....	34,337	-----	34,337	65,518	52.4	52.4
April.....	36,951	575	37,526	71,116	52.0	52.8
May.....	40,366	583	40,949	77,246	52.3	53.0
June.....	44,882	590	45,472	85,744	52.3	53.0
July.....	49,086	609	49,785	93,799	52.3	53.1
August.....	53,159	878	54,037	101,030	52.6	53.5
September.....	56,587	948	57,535	108,710	52.1	52.9
October.....	61,906	589	62,585	117,637	52.7	53.2
November.....	66,477	619	67,096	125,501	53.0	53.5
December.....	70,172	1,162	71,334	133,654	52.5	53.4
1941: January.....	77,107	1,626	78,733	146,197	52.7	53.9
February.....	80,064	2,347	82,411	153,554	52.1	53.7
March.....	85,051	2,985	88,036	161,231	52.8	54.6
April.....	91,553	3,797	95,350	172,240	53.2	55.4
May.....	96,209	3,882	100,151	183,134	52.6	54.7
June.....	103,628	4,538	108,166	200,200	51.7	54.0
July.....	112,976	5,124	118,100	218,925	51.6	53.9
August.....	120,663	5,922	126,585	238,549	50.6	53.1
September.....	128,692	6,877	135,569	255,796	50.3	53.0
October.....	138,971	8,700	147,671	276,810	50.2	53.3
November.....	143,895	9,966	153,861	291,574	49.4	52.8
December.....	151,546	11,915	163,461	313,297	48.4	52.2

See footnotes at end of table.

TABLE 3.—Total Employment in Prime Contracting Airframe Plants Operated under California Management, January 1940–August 1945—Continued

Month	Employment (end of month) in California - operated plants in—			Total em- ploy- ment, United States airframe industry	Percent of total in- dustry employed in—	
	California	Other States	United States		California plants	California- operated plants ¹
1942: January.....	159,312	15,064	174,376	341,603	46.6	51.0
February.....	168,869	16,452	185,321	368,669	45.8	50.3
March.....	171,069	19,122	190,191	390,278	43.8	48.7
April.....	173,730	23,006	196,736	412,927	42.1	47.6
May.....	178,113	25,382	203,495	439,188	40.6	46.3
June.....	186,054	29,244	215,298	470,765	39.5	45.7
July.....	196,041	33,872	229,913	505,274	38.8	45.5
August.....	203,549	42,794	246,343	553,240	36.8	44.5
September.....	213,475	47,555	261,030	589,503	36.2	44.3
October.....	224,767	53,500	278,267	635,056	35.4	43.8
November.....	237,488	60,912	298,400	680,535	34.9	43.8
December.....	254,377	69,345	323,722	729,995	34.8	44.3
1943: January.....	264,214	75,181	339,395	770,471	34.3	44.1
February.....	272,249	86,759	359,008	800,055	34.0	44.9
March.....	279,310	93,664	372,974	819,848	34.1	45.5
April.....	278,678	101,500	380,178	839,349	33.2	45.3
May.....	276,518	111,041	387,559	856,244	32.3	45.3
June.....	279,529	118,610	398,139	881,139	31.7	45.2
July.....	280,314	129,459	409,773	900,584	31.1	45.5
August.....	276,024	137,326	413,350	907,098	30.4	45.6
September.....	272,491	150,662	423,153	924,872	29.5	45.8
October.....	273,096	156,588	429,684	931,109	29.3	46.1
November.....	270,957	152,736	423,693	936,466	28.9	45.2
December.....	263,893	148,243	412,136	922,859	28.6	44.7
1944: January.....	257,541	146,752	404,293	913,091	28.2	44.3
February.....	250,976	147,071	398,047	898,865	27.9	44.3
March.....	242,506	144,965	387,471	875,423	27.7	44.3
April.....	234,895	145,082	379,977	856,325	27.4	44.4
May.....	224,866	144,072	368,938	840,351	26.8	43.9
June.....	214,774	141,892	356,666	811,623	26.5	43.9
July.....	209,610	140,033	349,643	796,976	26.3	43.9
August.....	200,447	135,842	336,289	769,282	26.1	43.7
September.....	189,847	130,714	320,561	741,129	25.6	43.3
October.....	187,074	127,462	314,536	721,449	25.9	43.6
November.....	184,823	127,109	311,932	715,421	25.8	43.6
December.....	182,712	127,772	310,484	713,081	25.6	43.5
1945: January.....	184,362	132,384	316,746	723,850	25.5	43.8
February.....	184,152	132,906	317,058	720,384	25.6	44.0
March.....	180,927	131,048	311,975	704,053	25.7	44.3
April.....	174,024	127,455	301,479	679,039	25.6	44.4
May.....	155,794	108,844	264,638	622,039	25.0	42.5
June.....	142,167	96,144	238,311	565,921	25.1	42.1
July.....	136,676	88,646	225,322	531,977	25.7	42.4
August ²	93,247	25,584	118,831	255,373	36.5	46.5

¹ Includes plants in California as well as those in other States.² Estimated.³ Preliminary figures.

Despite the proportionate decline, California's position actually suffered little, if employment be measured in terms of California management rather than physical location of workers. This approach is not so farfetched as might first appear. Plant expansion requires more than construction of shops and hiring of workers. These two elements are vital, but equally important are supervision and management. Under war conditions, the problem of adequate supervision could be handled best by inviting management acquainted with aircraft production techniques to operate the newly constructed plants in the interior of the country. Ultimately, 10 of these facilities were operated under California management. Not only was there a liberal expenditure of home-office effort in establishing and directing the operation of these plants, but key persons were transferred from

California to the new plants where they remained for the duration or at least sufficiently long to obtain replacements. If cognizance is taken of this accomplishment, the volume of airframe employment under California direction—both in and out of the State—represented 45 percent of the total when the industry completed its war expansion.

California's contribution to industrial peace is also noteworthy. Management in the airframe plants was aware of the potential difficulties inherent in the complete lack of uniformity existing in wages paid for seemingly identical jobs. Consequently, in the early part of 1941 an intercompany committee was formed to study the problem of standardization of jobs and job titles. The success of the committee's work can be measured by the fact that 1,154 job titles were reduced to 116 (291, if job gradations are included).² The standardization ultimately became known as the Southern California Aircraft Industry System (SCAI plan). When the National War Labor Board assumed responsibility for wage stabilization in the fall of 1942, it appointed a special committee to examine wage rates in California airframe plants, preparatory to its program of wage stabilization for the entire airframe industry. The SCAI plan was accepted by the committee and then by the National War Labor Board as the basis for airframe wage stabilization. The results of the California investigation, which was limited to 8 companies, served as a pattern for the entire industry, and, together with subsequent wage orders, eliminated troublesome inequalities. To the cooperative spirit of California labor and management and the Government in harmoniously reaching an early solution of wage differences goes the credit for removing what might have developed into a major obstacle to the aircraft program.

Improved Conditions for Negroes in Louisville

IN Louisville, Ky. (where almost 16 percent of the population is colored) Negroes are taking a more prominent part than ever before in the city government, and are receiving increased recognition, according to the International City Managers' Association.³

The salaries of all school teachers have been equalized, at an extra cost of \$65,000 per annum. For a long period Louisville had two salary schedules; many Negroes were teaching the same subjects as white teachers, but were receiving a smaller remuneration.

A new fire station, recently erected, is to be manned entirely by Negro firemen. In 1944 the number of Negro policemen in this municipality was doubled and two of these workers were advanced to the rank of sergeant. Of the four women on the staff of the Bureau for Crime Prevention, two are colored.

Representatives of the Negro race are serving on local boards and special agencies and committees. Fifty percent of the members of the city's interracial committee, appointed by the mayor, are Negroes. Others are serving on civic and wartime bodies, such as the housing commission, the library board, the defense council, the war fund board, rationing boards, and the mayor's legislative committee.

² See Bureau of Labor Statistics Bulletins Nos. 704 and 746.

³ In American City (New York), April 1945.

Louisville is providing additional recreational facilities for colored people, and of the six city public housing projects three are for them. A 100-bed wing has recently been added to the tuberculosis sanatorium, in which Negro patients are to be administered to by doctors, nurses, and a housekeeping staff, of their own race.



Labor Provisions of United States-Bolivia Tin Contract¹

THE tin contract between the United States and Bolivia, which was effective until June 30, 1945, included the following provisions relating to labor. The Bolivian sellers of tin ores and concentrates agreed (1) to comply with all local laws and regulations affecting labor relations, hours of work, wages, unemployment and disability compensation, safety, sanitation, food, shelter, health, education, child labor, and other like matters; (2) to pay wages no less than those in general prevailing for comparable operations in Bolivia; (3) to provide and maintain reasonably adequate safeguards against accidents; (4) to furnish their laborers and employees with adequate and suitable shelter, water, sanitation, medical treatment, and protection against controllable diseases, upon a fair and equitable basis; and, (5) if necessary, to assure such laborers and employees an adequate food supply at a reasonable cost.



Employment in Reconversion Period in Finland²

ADAPTATION of production to peacetime conditions does not pose the serious employment problem in Finland that it does in many other countries which were engaged in the war. This is due principally to the fact that in Finland war production was confined mainly to the metal and engineering industries, and that these industries can utilize in the present circumstances all the skilled labor available, provided that satisfactory supplies of machinery and raw materials are obtained.

Although about half a million men have been demobilized from war service (a high figure in relation to the total population of Finland), there have been no difficulties in providing them with employment; the greater number came from rural districts and went back to farming.

Recent reports state that the probability of serious unemployment in Finland is slight, provided again that the supply of raw materials and other requisites will enable industries and building enterprises to maintain a slowly increasing activity.

¹ Amendment of Tin Ore Contract and Amendatory Contract (approved, and performance by the sellers guaranteed by the Government of the Republic of Bolivia) entered into on March 3, 1945, between Compagnie Aramayo des Mines en Bolivie, the Compania Minera de Oruro group, Compania Minera Unificada del Cerro de Potosi, Asociacion Nacional de Mineros Medianos, and Banco Minero de Bolivia, all of La Paz, Bolivia; and the U. S. Commercial Co., an official agency of the Government of the United States of America.

² Data are from report by Maxwell M. Hamilton, United States Mission in Helsinki, July 6, 1945 (No. 89), inclosing report of survey completed on June 28, 1945, by the Commercial Division of the Finnish Foreign Ministry.

The wartime labor supply in various industrial branches is shown by the following figures:

	Number of workers—	
	At beginning of war	At end of war
Mining and ore dressing.....	600	2,600
Foundries.....	1,900	3,700
Engineering.....	41,000	53,000
Stone, clay, glassware, and peat.....	13,500	9,900
Chemicals.....	2,900	5,800
Leather, rubber, etc.....	11,800	9,200
Textiles and clothing.....	35,000	26,500
Paper, pulp, and timber.....	44,000	33,000
Food, drinks, tobacco, etc.....	13,900	14,700
Lighting and power transmission.....	3,100	3,400
Printing.....	6,300	6,000



Restoration of Vacation Privileges in the Soviet Union¹

THE Presidium of the Supreme Soviet of the U. S. S. R. directed the restoration from July 1, 1945, of all regular and special vacations for workers. During the war all vacations were suspended but paid for; rest homes and sanatoriums to which many workers repaired during their vacations had been converted into hospitals for war casualties.

At the outbreak of the war the trade-unions owned 621 rest homes and 230 sanatoriums, through which more than 2,000,000 people passed annually.² By early July 1945, 254 rest homes and 68 sanatoriums were again available to workers. The remainder were still being used as hospitals or had been destroyed during the war. As the hospitals are moved from the east to the west and south of the country, more facilities will be made available to workers.

The trade-unions' plans for 1945 provide for the sending of 750,000 persons to rest homes and sanatoriums, as compared with only 270,000 in 1944. Preference will be given in the following order: War invalids, adolescents, expectant mothers, workers in heavy and dangerous jobs, and the most productive workers. Authorizations will be granted by the factory and local trade-union committees.

¹ Data are from *Izvestia* (Moscow), July 3, 1945 (p. 2).

² Information Bulletin of Embassy of the U. S. S. R. (Washington, D. C.), December 5, 1944 (p. 6).

Discharged Soldiers

Reemployment Rights of Ex-Servicemen and Others in France¹

THE provisional Government of France decreed on May 1, 1945 (Decree No. 45875), that demobilized servicemen, prisoners, deportees, and other war victims who held contracts of work were to have the privilege of being reinstated in a former job or similar work in the same organization in which they were previously employed, provided that reemployment was possible. In seeking reentry into their former employment, persons were to follow a fixed procedure outlined in the decree.

Eligible Groups

The right of reinstatement was extended to (1) all persons of the categories listed, who voluntarily enlisted or were called up for service in the French armed forces during hostilities, including veterans from Alsace and Lorraine who fulfill the conditions of article I of the decree of March 10, 1945, on military pensions; (2) all repatriated prisoners of war; (3) all political or military detainees or deportees of the enemy or of the so-called Government of France; (4) those who gave up jobs to participate in resistance organizations or were deprived of jobs because of resistance activities; (5) those who were forced to give up jobs either to work for the enemy under conditions precluding all real intention to help the enemy war effort, or to avoid working for the enemy; (6) those who voluntarily contracted civilian work according to article 18 of the law of July 11, 1938; (7) those whose services were requisitioned in any civilian organization other than the one for which they previously worked; and (8) all refugees or war victims who were forced to give up jobs by reason of the war, under conditions determined by official ruling.

Application for Reinstatement

Changed conditions are to be taken into account in determining the possibility of reinstatement, according to the decree. On return home, the individual is to visit his former employer who in most instances will be willing to reinstate the former employee in his old job or a similar position, thus closing the question. If reinstatement is refused or some difficulty arises, the applicant, is required by the regulations to make a written request for reemployment, stating his name and address and that the request is a "recommended letter";

¹ Information is from Office of War Information, European Analysis and News Digest, Nos. 36 and 37, August 28 and 29, 1945.

furnishing information as to whether demobilized, liberated, or repatriated (giving the date); and asking for reinstatement in the position previously held in the organization to which the request is addressed. Under the terms of the decree, the sender is advised to retain the receipt obtained from the post office for his letter, as proof that application was made within 3 months of the time when he returned to civilian life, which is the time allotted for application for reinstatement. Should the organization to which application is made be closed temporarily, the 3-month period begins on the date of reopening. However, no request may be filed later than 3 years after the end of the war.

Refusal of Reinstatement

The former employer is allowed 2 weeks within which to answer the "recommended letter." Reinstatement may be refused only after consulting the Comité d'Enterprise, or representatives of the workers, and transmitting the employer's decision to the inspector of labor. Reasons for refusal are required and only two are considered valid: Functional or organizational changes that have so reduced requirements that the individual is no longer needed, and the loss of necessary qualifications by the applicant owing to illness, wounds, or infirmity.

If the inspector of labor deems that the reasons for refusal are insufficient he may take the matter up with the committee on reemployment or secure another medical examination, depending upon the reason given for such refusal. The final decision is to be made by the committee on reemployment, which is composed of a chairman, an employer, and a worker.

Refusal of reinstatement is not justified by reason of the fact that it would be necessary to dismiss a worker to reemploy the applicant; but the employer may not dismiss a fellow worker of longer standing in the organization or a veteran or former prisoner who has already been reinstated.

Priority of Reinstatement

If prospective workers outnumber jobs, priority in reinstatement is provided for those who volunteered or were called for service in the armed forces of France, repatriated prisoners of war, political and military detainees or deportees, and those persons who gave up jobs to participate in the resistance activities. Preference is insured for workers having had long service in a particular enterprise. The seniority of the categories listed above and of all others entitled to reinstatement is increased 1 year for married men and 1 year for each child.

Cooperation

Operations of Credit Unions in 1944

Summary

REVERSING a trend that has been sharply downward since the beginning of the war, both the membership and business of credit unions showed an increase in 1944, although the number of associations was smaller than in 1943. At the end of 1944 the number of associations on the register totaled 9,099, as compared with 10,373 in 1943. The 8,702 associations active and reporting for 1944 had 3,027,694 members and made loans aggregating \$212,305,479. These represented increases, as compared with 1943, of 0.1 percent in members and 1.7 percent in loans. Total assets which have continued to increase all through the war years, even while number of associations, membership, and business were declining, mounted to \$397,929,814, or 12.0 percent above 1943.

Net earnings on the year's business totaled \$5,716,736—a decrease of 14.0 percent from 1943. Dividends paid on share capital, from these earnings, also declined by 3.9 percent, to \$5,122,454.

Reserves at the end of 1944 amounted to \$25,081,703, or 20.7 percent of the \$121,005,395 outstanding in loans.

For the State-chartered associations the statistical data on which the present report is based were in most cases furnished to the Bureau of Labor Statistics by the State official—usually the Superintendent of Banks—charged with supervision of these associations. Reports were received from every State in the Union in which State-chartered credit unions were in operation, this being the first such record in the 20 years during which the Bureau has been collecting information on cooperative credit associations. For Alabama both the State Department of Insurance and the State Credit Union League furnished information. However, there are certain items concerning which some States do not require the associations to report; for these items in such States estimates were made, based on the trend in other States and on the trend of the other items in the same State. All of the information for the Federal credit unions was supplied by the Credit Union Division of the Federal Deposit Insurance Corporation.

The figures shown for individual States include both the Federal and State credit unions, except in Connecticut, Delaware, Hawaii, Nevada, New Mexico, South Dakota, and Wyoming. In Connecticut a credit union law was passed in 1939, but no associations had been organized under it at the end of 1944. In the other six States there was no credit union law on the books.¹ For all of these States, therefore, the figures shown cover Federal associations only.

¹ A new law was passed in 1945, however, in New Mexico.

Trend of Credit Union Development in the United States

The first attempt to obtain State legislation authorizing credit unions was made in 1870, but not until 1909 was the first law passed—in Massachusetts. Nevertheless five associations had been formed in the meantime in that State, one of them as early as 1892. In New Hampshire an association formed in 1908 was given a special State charter in 1909. From that time onward some progress was made each year, but the passage of enabling legislation was won very slowly. In 1921 the Credit Union National Extension Bureau was formed, and endowed by the late Edward A. Filene, for the purpose of furthering the expansion of the credit union movement, especially by obtaining the enactment of adequate credit union laws. A standard bill was drawn up, and in one State after another its passage was promoted. By 1929 credit union acts were on the statute books in 32 States. Of these, 22 had been enacted since 1920; in addition, in 1926 Massachusetts passed an act amending its old law throughout and in 1929 Oregon repealed its former law and passed a new one.

Formation of new associations followed the passage of the State laws and by 1929 there were nearly a thousand associations, with 265,000 members. As the number of associations became large enough, State credit union leagues were formed and these in turn, in September 1935, formed the Credit Union National Association, superseding the old Bureau which then went out of existence according to plan.

Up to 1934 all of the credit unions that had been chartered had been incorporated under State laws. However, some of these laws were still unsatisfactory from the cooperative standpoint and some imposed what seemed to be undue obstacles to the formation of new associations and undue burdens on those already in operation. In 1934, therefore, a credit union act was passed by the Congress of the United States and the Credit Union Division was created in the Farm Credit Administration² to oversee the carrying out of the law and render various services to the associations formed under it.

From that time onward, until checked by wartime conditions, the credit union movement expanded at an accelerated pace. Not only did the associations with Federal charters spring up and grow, but the older State-chartered movement also seemed to be stimulated to growth considerably faster than its previous pace. The rate of growth of the Federal credit unions, however, was consistently higher than that of the State-chartered associations, and by the end of 1944 the Federal credit unions accounted for 43.1 percent of the members, 36.9 percent of the loans made, and 36.3 percent of the total assets of the credit union movement.

In addition to the three major items—membership, business, and assets—presented in table 1, a steady increase also took place in share capital, net earnings, and dividends paid, through 1941.

The entry of the United States into the war was followed by a sharp decline in the credit union movement. Many associations were liquidated, membership fell off, and credit union loans showed a precipitous drop. This was caused by a number of factors. Among them were the issuance by the Federal Reserve Board of Regulation W (limiting to 18 months—later to 12 months—the period of repayment

² The Division was transferred to the Federal Deposit Insurance Corporation in 1942.

of installment purchases or loans made for that purpose), the disappearance from the market of higher-priced consumer goods (automobiles, refrigerators, etc.) for which many credit union loans had previously been made, the restrictions on the use of building materials, the emphasis on repayment of debts and the inadvisability of incurring new obligations of that nature, and the increased wartime earnings of wage earners which resulted in a lessened need for credit.

With the decline in business, earnings naturally fell off and dividends also. However, throughout the period 1941-44, all State totals have shown earnings (even though small) with one exception. The exception was Minnesota which, in 1944, showed a net loss of \$7,663 for the State-chartered associations. (The Federal associations had net earnings amounting to \$2,918.) Dividends of \$167,573 were nevertheless paid by the State-chartered associations in that State, from earnings in 1944 by associations that had earnings and from the accumulations from earlier years in other cases.³

TABLE 1.—Relative Development of State and Federal Credit Unions, 1925-44

Item and year	Total associations	State-chartered associations	Federal-chartered associations	Item and year	Total associations	State-chartered associations	Federal-chartered associations
Number of credit unions:				Membership—Con.			
1925.....	419	419	-----	1935.....	597,609	523,132	74,477
1929.....	974	974	-----	1936.....	1,170,445	854,475	315,970
1931 ¹	1,500	1,500	-----	1937.....	1,503,826	1,055,736	448,090
1932.....	1,612	1,612	-----	1938.....	1,863,353	1,236,826	626,527
1933.....	2,016	2,016	-----	1939.....	2,305,364	1,459,377	845,987
1934.....	2,450	2,450	-----	1940.....	2,815,590	1,695,358	1,120,232
1935 ¹	2,600	2,600	-----	1941.....	3,529,097	2,132,401	1,396,696
1936.....	5,355	3,490	1,865	1942.....	3,144,603	1,797,084	1,347,519
1937.....	6,292	3,792	2,500	1943.....	² 3,023,603	² 1,721,240	1,302,363
1938.....	7,314	4,299	3,015	1944.....	3,027,694	1,723,893	1,303,801
1939.....	8,326	4,782	3,544	Amount of loans:			
1940.....	9,479	5,269	4,210	1925.....	\$20,100,000	\$20,100,000	-----
1941.....	10,456	5,663	4,793	1929.....	54,048,000	54,048,000	-----
1942.....	10,602	5,622	4,980	1931 ¹	³ 21,214,500	³ 21,214,500	-----
1943.....	² 10,373	² 5,285	5,088	1932.....	³ 32,065,000	³ 32,065,000	-----
1944.....	9,099	5,051	4,048	1933.....	28,217,457	28,217,457	-----
Active, re-reporting credit unions:				1934.....	³ 36,200,000	³ 36,200,000	-----
1925.....	176	176	-----	1935.....	³ 39,172,308	³ 36,850,000	\$2,322,308
1929.....	838	838	-----	1936.....	100,199,695	84,541,635	15,658,060
1931 ¹	1,244	1,244	-----	1937.....	141,399,790	110,625,321	30,774,469
1932.....	1,472	1,472	-----	1938.....	175,952,433	129,058,548	46,893,885
1933.....	1,772	1,772	-----	1939.....	230,429,517	159,403,457	71,026,060
1934.....	2,028	2,028	-----	1940.....	306,092,416	201,105,625	104,986,791
1935.....	2,589	2,122	467	1941.....	362,291,005	227,959,046	134,331,959
1936.....	4,408	2,784	1,624	1942.....	250,000,284	158,463,317	91,536,967
1937.....	5,231	3,128	2,103	1943.....	² 208,807,888	² 131,542,506	77,265,382
1938.....	6,707	3,977	2,730	1944.....	212,305,479	133,971,582	78,333,897
1939.....	7,841	4,677	3,164	Total assets:			
1940.....	8,890	5,175	3,715	1925.....	(⁴)	(⁴)	-----
1941.....	9,650	5,506	4,144	1929.....	(⁴)	(⁴)	-----
1942.....	9,470	5,400	4,070	1931 ¹	\$33,645,343	\$33,645,343	-----
1943.....	² 8,983	² 5,124	3,859	1932.....	31,416,072	31,416,072	-----
1944.....	8,702	4,907	3,795	1933.....	35,496,668	35,496,668	-----
Membership:				1934.....	40,212,112	40,212,112	-----
1925.....	108,000	108,000	-----	1935.....	49,505,970	47,964,068	\$1,541,902
1929.....	264,908	264,908	-----	1936.....	83,070,952	73,659,146	9,411,806
1931 ¹	286,143	286,143	-----	1937.....	115,399,287	97,087,905	18,311,382
1932.....	301,119	301,119	-----	1938.....	147,156,416	117,672,392	29,484,024
1933.....	359,646	359,646	-----	1939.....	192,723,812	145,226,718	47,497,094
1934.....	427,097	427,097	-----	1940.....	252,293,141	180,198,260	72,094,881
				1941.....	322,214,816	216,557,977	105,656,839
				1942.....	340,347,742	221,114,849	119,232,893
				1943.....	² 355,262,808	² 228,314,723	126,948,085
				1944.....	397,929,814	253,663,658	144,266,156

¹ Partly estimated.² Revised.³ Revised to eliminate residential credit associations in Nebraska.⁴ No data.⁵ This practice is permitted by the State law.

Notwithstanding higher living costs, greater taxes, etc., it appears that some, at least, of the increased earnings of the members have been deposited with the credit unions in the form of either deposits (where these are allowed by law) or share capital. Assets continued to climb without a break, throughout the period, even while membership and loans were falling.

Operations in 1943 and 1944

Substantial reductions in total number of credit unions occurred in 1944. Nearly every State showed losses of at least a few associations as compared with 1943, but in some States this was due to the final winding up of the affairs of those that were previously in process of dissolution. The greatest reductions in total number of associations occurred in New York (with a net reduction of 169), Pennsylvania (115), Texas (93), Ohio (91), and California (72). In all of the other States having decreases the reductions totaled less than 50. The data shown in table 2 for Nebraska cover only the credit unions chartered under the new law and the occupational associations (which operate like credit unions) formed under the old cooperative credit associations law. The "residential" associations under the old law have been dropped from the Bureau's credit union statistics because they are now in reality community commercial banks.⁴

Illinois, with 766 associations at the end of 1944, had taken a slight lead over New York (764), but Massachusetts, Ohio, Pennsylvania, and Wisconsin still had over 500 associations each (table 2).

All but 19 States had fewer members at the end of 1944 than at the end of the previous year. In all of the States in which larger memberships were shown these increases occurred in spite of reductions in number of associations. For the United States as a whole the increases in membership slightly outweighed the decreases and the total number of members at the end of 1944 exceeded that for the previous year by 4,091, or 0.1 percent.

No State showed a total membership of over 300,000; in 1941 (the peak year) Illinois, New York, and Wisconsin were all in this class. Five States (Illinois, Massachusetts, New York, Ohio, and Pennsylvania) had over 200,000 members each at the end of 1944, but the credit union membership in Wisconsin had fallen from 396,159 at the end of 1941⁵ to 151,509 at the end of 1944.

Altogether, the credit unions in 27 States showed a greater amount of business (loans granted) in 1944 than in 1943, more than offsetting the lesser business in the other States and causing the total credit union loans to show an increase of 1.7 percent over the previous year.

Illinois was still the leading State as regards loans made, but these totaled only \$25,698,370 as compared with \$43,495,547 for that State in 1941. Other States with combined loans exceeding 20 million dollars in 1945 were New York and Massachusetts.

⁴ For data on the various types of associations in Nebraska in 1943, see Bureau of Labor Statistics Bulletin No. 797.

⁵ See Bureau's Serial No. R. 1482.

TABLE 2.—Operations of Credit Unions in 1943 and 1944, by States

[Some revisions in 1943 figures, on basis of later reports]

State, and type of association	Year	Number of associations ¹		Number of members	Number of loans made during year	Amount of loans—	
		Total	Reporting			Made during year	Outstanding end of year
All States.....	1944	9,099	8,702	3,027,694	1,613,632	\$212,305,479	\$121,005,395
	² 1943	10,373	8,983	3,023,603	1,646,367	208,807,888	122,468,130
State associations.....	1944	5,051	4,907	1,723,893	949,018	133,971,582	86,601,928
	² 1943	5,285	5,124	1,721,240	958,225	131,542,506	87,239,977
Federal associations.....	1944	4,048	3,795	1,303,801	664,614	78,333,897	34,403,467
	1943	5,088	3,859	1,302,363	688,142	77,265,382	35,228,153
Alabama.....	1944	80	77	26,806	³ 22,948	3,155,213	1,534,975
	1943	83	77	25,967	³ 20,425	2,681,446	1,251,656
Arizona.....	1944	24	24	3,419	³ 1,350	547,043	117,812
	1943	26	24	³ 3,504	³ 1,454	³ 200,728	112,421
Arkansas.....	1944	28	26	2,862	1,685	163,980	86,860
	1943	35	28	3,282	2,034	197,056	103,315
California.....	1944	451	442	³ 184,969	³ 89,047	³ 13,481,423	7,761,778
	1943	523	453	191,773	³ 97,665	³ 13,044,088	7,818,505
Colorado.....	1944	108	100	25,645	³ 18,259	³ 2,105,359	1,151,187
	1943	119	102	23,852	³ 13,385	³ 1,939,659	933,037
Connecticut ⁴	1944	185	179	89,517	47,962	5,742,389	1,963,648
	1943	215	170	92,775	47,812	5,760,962	2,198,752
Delaware ⁴	1944	10	9	2,114	1,148	139,085	67,574
	1943	13	10	2,291	1,252	143,923	62,775
District of Columbia.....	1944	113	106	66,099	³ 38,052	3,881,868	2,065,336
	1943	130	104	67,148	³ 36,200	3,861,540	2,166,807
Florida.....	1944	170	162	34,991	25,251	3,248,585	1,774,033
	1943	192	163	34,431	23,687	2,960,969	1,559,768
Georgia.....	1944	138	131	34,117	³ 22,744	³ 2,886,066	1,896,131
	1943	155	140	34,164	³ 25,108	³ 2,620,957	1,800,283
Hawaii ⁴	1944	97	96	37,753	10,076	1,941,163	1,001,467
	1943	102	94	38,291	14,393	2,419,304	1,295,258
Idaho.....	1944	33	31	3,895	1,329	173,653	87,049
	1943	44	34	4,199	1,655	210,154	98,672
Illinois.....	1944	766	756	290,032	³ 226,575	25,698,370	13,135,592
	1943	811	782	334,346	³ 223,257	24,978,297	13,209,074
Indiana.....	1944	297	294	³ 111,967	³ 62,326	³ 6,278,072	3,378,962
	1943	343	302	³ 107,736	³ 63,814	³ 6,111,586	3,234,452
Iowa.....	1944	201	196	41,395	18,921	2,420,443	1,825,666
	1943	240	212	41,690	22,112	2,626,549	2,005,400
Kansas.....	1944	118	111	27,914	³ 18,423	³ 2,202,696	1,071,793
	1943	133	121	38,162	³ 21,665	2,291,252	1,092,536
Kentucky.....	1944	108	107	³ 26,649	³ 15,214	³ 1,752,616	1,366,019
	1943	117	112	³ 27,498	³ 16,524	³ 2,247,978	1,405,106
Louisiana.....	1944	145	132	³ 35,241	³ 18,770	³ 2,243,350	³ 1,087,703
	1943	175	134	³ 31,603	³ 18,220	³ 1,936,933	952,416
Maine.....	1944	44	35	9,080	3,987	441,178	237,840
	1943	54	39	9,726	4,061	434,584	261,046
Maryland.....	1944	66	60	26,748	³ 17,458	³ 1,883,517	784,897
	1943	75	67	27,984	³ 15,924	³ 1,343,063	804,408
Massachusetts.....	1944	537	532	257,260	³ 122,591	22,654,669	15,466,050
	1943	563	532	256,302	³ 120,978	22,168,017	15,211,316
Michigan.....	1944	253	241	114,320	³ 51,950	³ 10,437,474	5,981,086
	1943	278	243	106,136	49,636	7,722,250	5,497,141
Minnesota.....	1944	365	329	66,696	³ 43,389	³ 3,662,418	5,451,077
	1943	381	343	68,487	³ 41,535	³ 3,625,376	5,429,834
Mississippi.....	1944	27	24	6,640	³ 5,784	³ 530,087	226,352
	² 1943	30	26	8,450	4,700	551,057	229,542
Missouri.....	1944	378	359	168,021	³ 44,328	³ 5,432,884	3,185,791
	1943	391	381	96,623	³ 50,342	³ 5,740,274	3,520,332
Montana.....	1944	42	37	6,382	³ 2,284	³ 373,912	201,345
	² 1943	45	37	5,868	2,176	277,280	142,740
Nebraska.....	1944	91	88	20,595	9,882	1,320,588	717,155
	² 1943	109	96	20,033	10,243	1,310,066	723,573
Nevada ⁴	1944	4	4	562	104	13,004	7,169
	1943	6	4	635	137	17,644	7,242
New Hampshire.....	1944	15	14	6,151	³ 3,557	³ 788,041	653,906
	1943	16	15	5,948	³ 3,135	³ 656,434	606,649
New Jersey.....	1944	241	233	114,225	63,925	6,382,951	2,632,417
	1943	282	232	104,500	62,353	6,417,190	2,666,516

See footnotes at end of table.

TABLE 2.—Operations of Credit Unions in 1943 and 1944, by States—Continued

[Some revisions in 1943 figures, on basis of later reports]

State, and type of association ¹	Year	Number of associations ¹		Number of members	Number of loans made during year	Amount of loans—	
		Total	Reporting			Made during year	Outstanding end of year
New Mexico ⁴	1944	14	14	1,324	589	\$63,358	\$28,217
	1943	19	15	1,476	542	54,043	28,538
New York.....	1944	764	729	279,116	² 144,310	² 23,601,108	12,898,928
	1943	933	737	286,851	² 153,746	² 25,246,435	14,056,090
North Carolina.....	1944	173	151	29,387	17,822	2,088,966	1,250,073
	1943	188	154	28,581	19,950	2,231,635	1,215,305
North Dakota.....	1944	95	80	10,589	3,241	738,280	486,812
	² 1943	115	87	9,887	3,569	558,339	335,791
Ohio.....	1944	589	575	214,099	97,508	12,317,470	6,311,501
	1943	680	597	216,627	103,264	13,258,049	6,665,583
Oklahoma.....	1944	75	72	16,513	² 7,737	² 1,238,328	² 710,019
	1943	89	75	² 18,873	² 8,764	² 1,174,373	677,717
Oregon.....	1944	75	71	13,053	5,135	811,167	544,424
	1943	92	77	14,025	5,850	879,082	569,731
Pennsylvania.....	1944	587	560	224,151	111,023	13,406,338	6,296,028
	1943	702	573	219,647	113,012	13,120,655	6,667,170
Rhode Island.....	1944	37	34	25,792	7,062	2,023,922	3,781,404
	1943	40	33	24,553	7,232	1,574,520	3,331,938
South Carolina.....	1944	30	31	7,688	5,346	427,749	190,507
	1943	62	32	8,168	² 5,547	² 448,872	² 199,940
South Dakota ⁴	1944	32	32	5,176	2,547	273,901	119,880
	1943	37	32	5,165	3,050	296,487	126,812
Tennessee.....	1944	127	124	34,567	² 27,298	² 3,581,047	1,428,126
	1943	165	126	35,216	² 30,037	² 3,579,940	1,413,518
Texas.....	1944	354	328	77,952	² 45,870	² 5,763,109	3,063,612
	1943	447	352	80,773	² 50,934	² 5,805,904	3,314,809
Utah.....	1944	66	65	11,577	² 7,625	² 1,204,492	567,092
	1943	73	67	11,327	² 5,566	² 763,993	515,792
Vermont.....	1944	9	9	1,562	1,265	74,947	27,554
	1943	11	9	1,390	² 1,117	² 76,456	24,971
Virginia.....	1944	91	86	25,396	14,366	1,462,221	901,198
	1943	126	86	26,243	17,201	1,862,480	1,020,981
Washington.....	1944	200	180	37,739	² 18,999	2,428,191	² 1,280,285
	1943	229	200	39,852	17,276	2,328,995	1,298,075
West Virginia.....	1944	67	60	15,857	² 7,983	² 764,907	452,887
	1943	82	64	16,269	² 8,639	² 806,435	485,553
Wisconsin.....	1944	551	548	151,509	77,640	7,885,115	3,655,518
	1943	572	571	162,615	² 74,023	8,081,679	4,050,187
Wyoming ⁴	1944	19	18	2,582	947	168,766	86,660
	1943	25	19	2,661	1,166	162,000	78,057

¹ Most of the difference between the total number of associations and the number reporting is accounted for by associations chartered but not in operation by the end of the year and associations in liquidation which had not relinquished their charters.

² Revised.

³ Partly estimated.

⁴ Federal Associations only; no State-chartered associations in this State.

The data shown in the foregoing table cover the calendar year 1944 except for the State-chartered associations in Arizona, Kentucky, New Hampshire, and Vermont where they are for the year ending June 30, and Georgia where they are for the year ending November 30.

As regards total assets, Illinois continued to be the leading State, but was closely followed by Massachusetts. At the end of 1944 six States (California, Illinois, Massachusetts, New York, Ohio, and Pennsylvania) each had aggregate credit union assets exceeding 20 million dollars. In Georgia and Massachusetts an increase in assets was achieved in spite of a decline in share capital.⁶

⁶ Additional statistical data on assets, earnings, and dividends, by States, will appear in a forthcoming bulletin.

Status of Labor Banks, June 30, 1944

AN INCREASE of 25 percent was shown in total assets of the 4 labor banks on June 30, 1945, as compared with the same date of 1944. About the same rate of increase took place in deposits, and net worth (capital, surplus, and undivided earnings) rose 7 percent. Three of the individual banks reported increases in all three items; the fourth, Brotherhood State Bank, increased its net worth, but deposits and total assets fell.

The following table, data for which were supplied by the Industrial Relations Section of Princeton University, gives comparative figures for the 2 years for each of the four banks.

Status of Labor Banks as of June 30, 1944 and 1945

Bank	June 30—	Capital, surplus and undivided earnings	Deposits	Total resources
All banks.....	1945	\$3,428,079	\$72,776,529	\$76,509,122
	1944	3,190,257	57,808,954	61,173,804
Amalgamated Trust & Savings Bank, Chicago, Ill.....	1945	1,277,374	27,214,085	28,590,543
	1944	1,146,852	19,612,646	20,828,305
Brotherhood State Bank, Kansas City, Kans.....	1945	452,619	11,119,076	11,602,622
	1944	437,580	12,129,803	12,567,383
Union National Bank, Newark, N. J.....	1945	616,097	9,430,712	10,082,507
	1944	576,590	7,742,386	8,334,746
Amalgamated Bank of New York, N. Y.....	1945	1,081,989	25,012,656	26,233,450
	1944	1,029,236	18,324,120	19,443,369

Housing Conditions

British Measures for Securing Housing and Building Labor, 1944-45¹

DURING the period when the war was still in progress and before the Labor Government took office in Great Britain in July 1945, exploratory work was started to determine postwar housing requirements; legislation was enacted to provide a limited number of permanent and temporary dwellings in the transitional period; arrangements were made to obtain prefabricated dwellings from the United States; a law was enacted for the purpose of encouraging industrial expansion in development areas, thereby relieving pressure in congested centers and laying the groundwork for improving housing in less-populous areas; and preparations were in progress for training additional building labor. The general agreement was that house construction was to have a high priority among reconstruction measures, the need being urgent because of the destruction or partial destruction of many dwellings by enemy action in the war years and also because of the lack of civilian building during hostilities. However, the program developed by midsummer 1945 being primarily of a transitional nature, the questions still remained open as to the extent to which housing would be subsidized by the Government and the size of the building program over a 10- to 15-year period.

Estimates of Housing Requirements and Rate of Construction

Contrasted with an annual rate of construction of 300,000 units in the years 1934-39, the number of houses built between 1939 and 1945 totaled not over 200,000 according to a Government White Paper (Cmd. 6609) issued in the spring of 1945. The housing supply was actually curtailed in wartime by the complete destruction of 200,000 houses and such damage to 250,000 others as to make them uninhabitable. A repair program of considerable proportions was undertaken, to make the seriously damaged dwellings habitable, and also to improve damaged properties that were still being occupied. The expressed objective of the Government was to afford a separate dwelling for every family desiring one, and to provide for the rapid completion of the programs for slum clearance and relief of overcrowding that were under way in 1939 before the war started. Progressive improvement in the standards of housing accommodation and equipment was desired ultimately. To furnish a separate dwelling for each family, it was stated, would entail the construction of some 750,000 units, and to clear slums and abate overcrowding another

¹ Prepared in the Bureau's Editorial and Research Division by Margaret H. Schoenfeld.

500,000. No statistical estimate was made of the long-term housing program, the Government stating that continuous building was desirable to improve the conditions.

In fulfilling its housing objectives, the Government proposed to regard the first 2 years after the end of hostilities in Europe as a period of national emergency. Repair of war-damaged houses was to have the highest priority in the construction field. Taking into account the availability of labor and materials, the maximum target was stated to be 300,000 permanent houses built or in progress at the end of 2 years after the war ended in Europe, of which 220,000 would be completed, and 80,000 in process of construction. Prefabricated and other nontraditional forms of construction, that require less labor than other types of building, were to be employed to the fullest extent practicable.

Nongovernmental groups and individuals expressed doubts that the Government's objective of 300,000 permanent dwellings, completed or in progress, could be reached in the allotted time. For example, Sir Ernest Simon placed the maximum possible construction at 50,000 permanent units completed in the first postwar year and 100,000 in the second year—a total of 150,000. He added that it was to be remembered that immediately after the war of 1914-18, the 2-year output was only 37,000 units.

When the White Paper was issued, the Government intended to supply 145,000 temporary housing units for which commitments had been made to local authorities. Of this number, 30,000 were to come from the United States. Various forms of prefabrication had been tried, and the materials utilized included pressed steel, wood, concrete and asbestos cement. Temporary housing was found to be costly because the dwellings are short-lived and substandard as to accommodation. Such construction was being continued as a means of partially filling needs, pending the time when construction of a permanent nature could be undertaken.

Legislative Measures

Permanent housing.—The Housing (Temporary Provisions) Act of August 1944 was intended as an aid in the supply of permanent housing during the period following the end of hostilities in Europe, by providing two alterations in the preexisting housing legislation for England and Wales. (A law for Scotland was enacted in October 1944.) Payment of subsidies which were previously permitted exclusively for houses built to relieve slum clearance, for the abatement of overcrowding, and for agricultural laborers was extended to include dwellings built to meet the general needs. Such subsidy was made applicable to all new houses built by a local authority between the date when the law became effective and October 1, 1947. To prevent delays in the acquisition of land for temporary or permanent housing, it was also provided that compulsory purchase by local authorities of land for building purposes would be approved by the Minister of Health without a public inquiry. This exemption was authorized for a 2-year period following passage of the enabling law.

Temporary housing.—Funds were made available for temporary forms of housing by the provisions of the Housing (Temporary Accommodation) Act of October 1944, applying to Great Britain as a

whole. The sum of 150 million pounds was to be granted to the Ministry of Works for the manufacture and erection of approximately 250,000 temporary houses costing an average of £600 each. A later enactment, the Housing (Temporary Accommodation) Act of June 15, 1945, authorized the use of open space for the erection of temporary dwellings for which the 1944 law made provision. The 1945 act empowered the Minister of Health (Secretary of State in Scotland), for 2 years, to make such authorization to local authorities for the use of land vested in them or at their disposal. Action taken under the legislation was made subject to approval by the Minister of Town and Country Planning (Secretary of State in Scotland). Any such authorization may not cover more than 10 years, and shall be revocable during that period by the Minister of Health.

Distribution of industry.—Another law, enacted on June 15—the Distribution of Industry Act of 1945—will influence the location of houses to be constructed. Sections 1 and 2 authorized the Board of Trade to acquire land in special areas for development, including the erection of factories, dwellings, and other ancillary buildings. However, the broad objectives of the legislation are closely bound up with the general employment policy, which aims at the securing of a better-balanced distribution of industry throughout the country by expanding activity in the areas that would otherwise be threatened by heavy unemployment (the so-called development, special, or distressed areas).

Requisitioned dwellings.—An organized movement by a group of "vigilantes" who took over unoccupied houses and installed homeless families without recourse to the normal processes of securing tenancy led to court condemnation of "the law of the jungle" but directed attention to the need for strengthening the provisions for the requisitioning of empty buildings. In mid-July 1945 the Government, therefore, granted the municipal and county councils the right to requisition unoccupied properties without having to consult the Ministry of Health, as previously prescribed. Under this authority the owner is allowed 14 days in which to move into an unused place; otherwise, necessary repairs are made and tenants are installed.

Labor Program

Estimated labor force.—Shrinkage in the labor force of the building industry is among the chief factors limiting the rate of expansion in house construction. Government statistics show that 337,000 workers were attached to the building force available in Britain early in 1945 as compared with a complement of 1,000,000 in 1939. The maximum number that could be foreseen, 1 year after the end of the war in Europe, was 800,000, allowing for normal and special releases from the armed forces² and the addition of workers who become available owing to the training schemes for apprentices and for adults. To secure this objective, the Minister of Health has stated, will be an achievement, but even so the average number of operatives in the 12 months will be only about 500,000, or half the prewar strength.

Recovery of prewar workers.—The construction industry was among those for which special measures were adopted to speed the shift of labor from war employment to urgent civilian tasks. For example,

² See Monthly Labor Review for January 1945 (p. 43) for the interim reallocation of manpower.

the Control of Engagement Order promulgated on June 4, 1945,³ by providing for the retention of control over the placement of males between the ages of 18 and 50 years was expected to aid in staffing the building industry. Block release from the armed forces under Class B, consisting of persons transferred out of turn to do needed work, was to be aimed primarily at obtaining the highest possible proportion of labor for housing.

Registration was also ordered on June 16, 1945, of men having previous experience in building but who were otherwise employed. The Minister of Labor and National Service required that they should register at local offices of the Ministry under the terms of the Registration for Employment Order. Persons between the ages of approximately 18 and 60 years were covered, who had been engaged in a building or civil-engineering contracting enterprise for a total of 12 months at any time subsequent to January 1, 1935. Application extended to all persons, whether skilled or unskilled. Exempted classes consisted of men who were engaged in building and civil-engineering work on the date of registration; persons whose experience had been in canteen work only; and those who were normally exempted from liability to comply with registration orders (for example, men serving full time in the armed forces). The Government was hopeful that eligible men would welcome the opportunity to return to the industry. It was stated that if direction into the work became necessary, men would have the right of appeal on grounds of hardship.

Training.—The need for intensified training of workers for the building trades was stressed in the second report of the Building Apprenticeship and Training Council issued in 1944. According to the council, the normal annual wastage in the industry from death, sickness, or retirement at the age of 65 years will be not less than 4 percent in the postwar years. On a labor force of 625,000 the loss would amount to 25,000 persons annually. Therefore, it was concluded that the central and local governments should take special measures to induce employers to absorb apprentices in sufficient numbers, and that during the period when the industry was being built up employers should be prepared to accept apprentices in a proportion in excess of the 1 to 4 required to make good the annual labor wastage. At the end of September 1944, the report stated, nearly 64,000 apprentices and youths were being trained by over 36,400 employers.

As normal apprenticeship training was hampered during the war years in the building industry owing to lack of suitable construction, a scheme was developed in the period under review as a means of adding to the number of trained building workers. The program consisted of apprenticeship training in the erection of buildings under the guidance of craftsmen instructors. Apprenticeship committees were formed throughout the country to make arrangements with local building firms for the training of boys aged 15 years and over (14 years of age as probationers). Qualified firms became apprentice masters who placed the boys under the supervision of skilled craftsmen in their employ, the apprentices working directly under the craftsmen on actual construction. The applicant was required to be willing to be apprenticed for 5 years, at pay ranging from one-fourth of the skilled craftsman's rate in the first year to three-fourths in the fifth year. Time spent under the apprentice master was to count fully

³ See Monthly Labor Review for September 1945 (p. 437).

toward the ordinary apprenticeship to which the boys were to be transferred as soon as opportunity was afforded.

A second scheme to aid in manning the building industry provides for the completion of apprenticeship by workers of various kinds whose training was interrupted by war service.⁴ Regarding this plan, the Building Apprenticeship and Training Council has expressed the view that intensive courses are desirable for returning apprentices, which would enable them to obtain a recognized craft qualification by attending courses for 6 months, provided they have reached the age of 20 years at the end of the course.

Training for the building trades has superseded engineering as of first priority under the system of adult vocational training that became effective on July 2, 1945, for the resettlement of persons released from work of national importance (including industrial work) and for assistance in overcoming the abnormal labor shortage. Programs were worked out by the Government after consultation with employer organizations and trade-unions in each industry. In general, the courses are for 6 months or longer (according to the trade) to be provided in Government training centers or technical colleges, by employers, or by a combination of these agencies. Training allowances were fixed at a rate equivalent to £4 weekly for an adult male, as they are not subject to income tax or deductions for health and unemployment insurance. Allowances are also authorized for dependents and travel. It is expected that when training is in full operation, 20,000 building workers will complete their courses every 6 months and will take up work in the industry at the rates of wages agreed upon between employers and trade-unions. A note in the *Economist* (London) for August 4, 1945, states that after 6 months of training under instructors who are skilled craftsmen, the trainees are to continue their training for another 14 months with a building employer, receiving pay at 85 percent of the skilled worker's rate, rising to 90 percent after 6 months, and then reaching 95 percent until the training ends.

Use of German labor.—In order to assist the housing program, the Minister of Works stated on May 9, 1945, that the Government had decided to utilize German prisoners of war in considerable numbers. They were to be occupied at first on road making, sewer construction, site preparation, and other civil-engineering work. Full discussions were held with representatives of the National Federation of Building Trade Operatives and the Federation of Civil Engineering Contractors regarding the question. The decision was that prisoners of war were to help prepare sites both for temporary and for permanent houses.

Trade-union aid to prefabrication.—In the assembly and erection of prefabricated houses as a part of the temporary housing program, with craftsmen being needed to do jobs that do not normally fall in their province, the question arose of the "interavailability of labor." This question was discussed at a conference of the executives of the building-trades unions. It was agreed that bricklayers, joiners, plumbers, plasterers, laborers, and other workers would be permitted to work together, provided each man received his regular rate of pay. A wartime agreement was previously in effect, under the essential-work order, whereby a craftsman could be called on in an emergency to perform a laborer's work, but at the craft rate of pay.

⁴ See Monthly Labor Review for September 1945 (p. 517).

Industrial Injuries

Industrial Injuries in Manufacturing, Second Quarter of 1945

ESTIMATES based upon reports from about 12,500 establishments indicate that approximately 147,000 employees of manufacturing plants were disabled by work injuries during the second quarter of 1945. This total represents about 12,000 fewer injuries than occurred in the first 3 months of the year and reflects both a slight improvement in the average injury-frequency rate for manufacturing and the effect of a general reduction in the total volume of employment.

From the information available at the end of June it is estimated that about 750 of the workers injured during the second quarter have died as the result of their injuries and that 5,200 others will have permanent physical handicaps. Later information concerning the final outcome of the other injuries, which appeared to be only temporary disabilities at the time the reports were prepared, may necessitate an upward revision in these estimates of the volume of more serious injuries.

The information presently available does not permit an estimate of the total cost of these injuries in terms of either lost time or money. The actual loss in working time during the second quarter of 1945, however, may be conservatively estimated as about 2,940,000 man-days, which is equivalent to full working time throughout the period for over 37,000 workers.

In comparison with injury-frequency rates of 17.4 in January, 17.5 in February, and 17.0 in March, the manufacturing group of industries averaged 17.3 disabling injuries for every million employee-hours worked in April, 16.5 in May, and 17.0 in June. The average rate for the entire second quarter was 16.9, which was only slightly lower than the average of 17.3 for the first quarter, but was substantially lower than the average of 18.4 for the full year of 1944. Similarly the average injury-frequency rate for the second quarter of 1945 was well below the average of 19.9 for the second quarter of 1944.

Among the 119 separate industry classifications for which injury-frequency rates were computed there were 53 with average rates for the second quarter which were at least a full frequency-rate point lower than their corresponding averages for the first quarter of 1945. In 9 instances the reduction amounted to 5 or more frequency-rate points. In contrast there were 5 industries for which the second-quarter frequency rates were 5 or more points higher than their first-quarter rates, and 26 others which showed increases of 1 to 5 points.

The lowest average frequency rate for the second quarter of 1945 was that of the plants manufacturing miscellaneous items of apparel.

In these plants disabling injuries occurred at the very low rate of 3.2 per million employee-hours worked. The rate of 3.3 for the explosives industry, however, was a close second, while the rates of 4.0 for plants manufacturing women's and children's clothing and 4.6 for plants manufacturing electric lamps (bulbs) were only slightly higher. No other industries had average frequency rates below 5, but there were 22 additional industries which had second-quarter averages between 5 and 10. At the top of the frequency-rate range for the quarter there were 5 industry groups with average rates of over 40. These were plants manufacturing wooden containers, which had an average rate of 40.7; plywood mills, for which the average was 41.8; iron foundries, with an average rate of 42.5; plants combining sawmill and planing-mill operations, with an average of 50.6; and plants exclusively engaged in sawmill operations, which had the highest rate among the industries covered, 52.4.

Industrial Injury-Frequency Rates¹ for Selected Manufacturing Industries, Second Quarter of 1945, with Cumulative Rates for 1945

Industry ²	Second quarter					Frequency rate	
	Number of establishments ³	Frequency rate ⁴ for—				1945: Jan.-June, cumulative ⁴	1944: Annual
		April	May	June	Second quarter		
Apparel:							
Clothing, men's and boy's.....	463	7.5	8.2	8.7	8.1	8.8	9.2
Clothing, women's and children's.....	355	4.6	2.6	4.7	4.0	5.8	4.8
Apparel and accessories, not elsewhere classified.....	14	(⁵)	(⁵)	(⁵)	3.2	3.9	(⁵)
Trimmings and fabricated textile products not elsewhere classified.....	102	20.5	18.1	21.4	20.0	22.4	(⁵)
Chemicals:							
Compressed and liquified gases.....	49	12.7	9.5	5.8	9.3	11.3	(⁵)
Drugs, toiletries, and insecticides.....	22	26.2	23.3	14.3	21.2	17.6	18.6
Explosives.....	52	5.4	2.4	1.5	3.3	4.1	5.3
Industrial chemicals.....	166	11.2	14.7	14.5	13.1	12.4	(⁵)
Paints, varnishes, and colors.....	61	17.3	10.3	17.7	15.1	16.6	18.3
Plastic materials, except rubber.....	12	7.0	5.6	5.7	6.1	5.9	(⁵)
Soap and glycerin.....	55	11.8	12.1	11.2	11.7	11.5	15.0
Synthetic rubber.....	21	6.2	5.4	6.7	6.1	5.4	(⁵)
Synthetic textile fibers.....	22	7.6	5.9	8.1	7.2	7.1	9.0
Chemical products, not elsewhere classified.....	93	16.9	11.6	13.6	13.6	15.3	15.7
Electrical equipment:							
Automotive electrical equipment.....	14	5.4	5.2	6.9	5.8	10.8	(⁵)
Batteries.....	31	17.7	16.6	21.0	18.4	20.5	(⁵)
Communication and signaling equipment, except radio.....	36	5.6	7.1	6.3	6.3	7.2	(⁵)
Electrical equipment for industrial use.....	328	9.3	8.1	7.5	8.3	8.2	(⁵)
Electric lamps (bulbs).....	15	7.1	4.2	2.5	4.6	3.9	(⁵)
Insulated wire and cable.....	23	20.2	20.3	13.9	18.1	17.3	(⁵)
Radios and phonographs.....	203	6.1	6.5	5.8	6.1	7.6	9.2
Electrical equipment, not elsewhere classified.....	24	7.8	6.2	6.4	6.8	7.5	(⁵)
Food:							
Baking.....	32	15.9	17.5	20.6	18.0	23.4	20.2
Canning and preserving.....	36	31.0	25.9	24.5	27.1	26.8	28.9
Confectionery.....	6	31.0	14.4	17.1	20.9	20.0	19.0
Distilleries.....	29	12.0	13.9	14.9	13.7	14.9	(⁵)
Flour, feed, and grain mill products.....	8	21.8	14.1	28.0	21.3	19.9	31.1
Slaughtering and meat packing.....	406	31.5	33.7	33.1	32.8	31.8	35.9
Food products, not elsewhere classified.....	33	12.0	13.1	10.4	11.9	17.0	26.3
Furniture and lumber products:							
Furniture, wood.....	57	28.1	25.2	30.8	28.0	33.4	(⁵)
Wooden containers.....	533	43.2	34.5	44.8	40.7	39.9	47.1
Miscellaneous wood products, not elsewhere classified.....	102	38.5	37.4	33.4	36.5	33.0	32.6

See footnotes at end of table.

Industrial Injury-Frequency Rates¹ for Selected Manufacturing Industries, Second Quarter of 1945, with Cumulative Rates for 1945—Continued

Industry ²	Second quarter					Frequency rate	
	Number of establishments ³	Frequency rate ⁴ for—				1945: Jan.-June, cumulative ⁴	1944: Annual
		April	May	June	Second quarter		
Iron and steel:							
Bolts, nuts, washers, and rivets.....	52	24.1	23.7	24.4	24.1	24.4	22.9
Cold finished steel.....	23	17.6	14.4	22.5	18.2	19.4	(⁵)
Cutlery and edge tools.....	37	24.7	24.6	28.5	25.8	26.1	28.1
Fabricated structural steel.....	207	25.4	30.9	34.6	30.2	30.2	35.7
Forgings, iron and steel.....	132	31.0	28.5	30.2	29.9	29.7	37.7
Foundries, iron.....	409	44.5	42.4	40.6	42.5	43.0	(⁵)
Foundries, steel.....	117	37.9	35.1	37.5	36.8	36.3	(⁵)
Hardware.....	36	16.3	14.4	11.1	13.9	14.9	20.0
Heating equipment, not elsewhere classified.....	53	22.3	29.1	31.5	27.6	28.2	42.8
Iron and steel.....	171	8.0	7.5	8.7	8.1	8.4	9.9
Metal coating and engraving.....	82	27.8	26.8	24.8	26.5	22.9	(⁵)
Plate-fabrication and boiler-shop products.....	143	27.5	34.1	34.8	32.1	32.8	44.7
Plumbers' supplies.....	24	12.8	16.3	16.4	15.2	14.4	20.8
Screw-machine products.....	106	15.0	11.5	15.4	14.0	14.2	18.8
Sheet-metal work.....	51	17.7	23.8	27.5	23.1	25.8	39.2
Stamped and pressed metal products, not elsewhere classified.....	218	23.2	20.5	20.8	21.5	20.5	27.4
Steam fittings and apparatus.....	51	18.5	17.0	19.9	18.5	20.3	23.4
Steel barrels, kegs, drums, and packages.....	40	41.1	34.2	34.7	36.7	34.6	(⁵)
Steel springs.....	11	17.5	12.0	20.8	18.8	20.8	(⁵)
Tin cans and other tinware.....	19	13.1	13.6	21.4	16.1	14.8	19.7
Tools except edge tools.....	63	23.9	19.6	24.5	22.6	22.3	25.5
Wire and wire products.....	133	22.1	19.1	23.2	21.4	21.2	23.2
Wrought pipes, welded and heavy-riveted.....	11	(⁵)	(⁵)	(⁵)	15.5	17.9	(⁵)
Iron and steel products, not elsewhere classified.....	78	22.0	23.4	23.4	23.0	25.0	(⁵)
Leather:							
Boots and shoes, not rubber.....	274	12.7	13.3	11.4	12.5	13.0	12.3
Leather.....	21	32.8	32.9	28.7	31.5	30.3	29.2
Lumber:							
Sawmills.....	106	53.8	49.8	53.7	52.4	54.0	(⁵)
Sawmills and planing mills combined.....	42	47.5	52.2	52.3	50.6	51.6	(⁵)
Planing mills.....	551	36.5	36.9	40.9	37.9	36.3	(⁵)
Plywood mills.....	48	40.5	37.6	47.1	41.8	41.5	(⁵)
Machinery, except electric:							
Agricultural machinery and tractors.....	66	21.6	22.2	22.6	22.1	21.9	24.0
Bearings, ball and roller.....	27	20.4	14.8	14.7	16.5	16.8	(⁵)
Commercial and household machinery.....	51	15.4	17.8	12.6	15.2	16.0	18.1
Construction and mining machinery.....	109	22.0	19.6	22.4	21.3	22.4	28.4
Elevators, escalators, and conveyors.....	18	(⁵)	(⁵)	(⁵)	28.8	27.6	(⁵)
Engines and turbines.....	56	14.0	13.9	11.1	13.0	13.0	10.1
Food products machinery.....	28	22.3	22.5	21.4	22.1	23.5	27.3
General industrial machinery, not elsewhere classified.....	337	22.7	21.9	20.3	21.6	22.6	(⁵)
General machine shops (jobbing and repair).....	227	19.2	16.7	18.1	18.0	19.2	20.3
Mechanical measuring and controlling instruments.....	55	9.9	11.7	13.2	11.6	11.4	(⁵)
Mechanical power transmission equipment, except ball and roller bearings.....	69	15.3	16.1	15.4	15.6	16.6	(⁵)
Metalworking machinery.....	561	14.3	13.7	15.8	14.6	14.7	16.9
Pumps and compressors.....	60	20.8	23.1	22.0	22.0	18.5	(⁵)
Special industry machinery, not elsewhere classified.....	82	22.8	24.6	18.6	22.0	23.1	22.6
Textile machinery.....	15	9.1	10.8	8.5	9.5	9.7	17.3
Nonferrous metals:							
Aluminum and magnesium products.....	12	10.0	11.8	14.6	12.0	13.9	(⁵)
Foundries, nonferrous.....	265	25.1	21.7	25.2	24.0	25.5	(⁵)
Nonferrous basic shapes and forms.....	21	16.8	19.9	19.3	18.6	19.4	(⁵)
Watches, clocks, jewelry, and silverware.....	12	(⁵)	(⁵)	(⁵)	7.1	7.3	(⁵)
Nonferrous metal products, not elsewhere classified.....	116	21.3	25.1	28.5	24.9	25.5	(⁵)
Ordnance:							
Ammunition under 20 mm.....	17	8.8	4.4	4.8	6.3	7.0	7.2
Ammunition, except for small arms.....	292	21.7	21.6	21.0	21.4	21.0	16.1
Guns and related equipment.....	92	15.4	15.8	14.6	15.2	14.8	15.0
Sighting and fire-control equipment.....	32	9.2	6.8	8.5	8.2	8.4	7.9
Small arms.....	58	17.0	15.2	14.4	15.6	16.6	11.9
Tanks, military.....	12	29.0	23.7	30.9	27.7	26.3	12.2
Tank components, military.....	46	30.3	26.8	36.6	31.0	28.1	15.4
Ordnance and accessories, not elsewhere classified.....	43	25.5	21.2	17.8	21.5	20.4	18.8

See footnotes at end of table.

INDUSTRIAL INJURIES

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Industrial Injury-Frequency Rates¹ for Selected Manufacturing Industries, Second Quarter of 1945, with Cumulative Rates for 1945—Continued

Industry ²	Second quarter					Frequency rate	
	Number of establishments ³	Frequency rate ⁴ for—				1945: Jan.-June, cumulative ⁴	1944: Annual
		April	May	June	Second quarter		
Paper:							
Paper boxes and containers.....	385	20.1	25.9	21.5	22.5	23.3	23.3
Paper.....	272	26.8	25.7	27.2	26.6	27.1	31.0
Paper and pulp, integrated.....	104	24.8	24.3	24.2	24.4	23.4	26.6
Pulp.....	25	30.2	43.5	31.3	35.1	34.6	39.2
Paper products, not elsewhere classified.....	29	17.8	18.3	28.2	21.4	18.4	21.5
Printing:							
Book and job printing.....	37	10.6	8.1	10.2	9.7	9.8	9.0
Rubber:							
Rubber boots and shoes.....	13	7.6	8.3	7.9	7.9	9.0	12.4
Rubber tires and tubes.....	37	14.4	15.1	12.3	14.1	13.9	15.5
Rubber products, not elsewhere classified.....	82	16.2	14.6	18.0	16.2	17.7	18.8
Stone, clay, and glass:							
Glass.....	36	10.9	16.6	19.8	15.6	15.0	18.0
Pottery and related products.....	30	22.5	22.7	23.5	22.9	23.2	17.9
Stone, clay, and glass products, not elsewhere classified.....	60	17.0	17.0	15.6	16.5	14.9	18.3
Textiles:							
Cotton yarn and textiles.....	210	11.9	12.4	11.7	12.0	12.6	16.5
Dyeing and finishing textiles.....	49	15.8	11.8	15.2	14.2	16.9	24.5
Knit goods.....	77	7.2	6.8	9.4	7.8	9.0	8.1
Rayon, other synthetic, and silk textiles.....	49	11.8	12.1	14.2	12.7	13.7	13.3
Woolen and worsted textiles.....	155	20.0	16.6	18.1	18.2	18.2	20.2
Miscellaneous textile goods, not elsewhere classified.....	29	20.5	17.9	17.7	18.7	19.3	(⁵)
Transportation equipment:							
Aircraft.....	33	9.0	8.0	8.0	8.3	8.1	8.8
Aircraft parts.....	248	12.9	11.8	12.9	12.5	11.8	10.1
Motor vehicles.....	82	16.4	16.2	15.9	16.2	18.5	14.4
Motor-vehicle parts.....	65	24.2	19.9	24.0	22.6	20.9	25.8
Railroad equipment.....	45	22.0	22.3	20.3	21.5	21.2	21.3
Shipbuilding.....	231	22.8	21.9	23.0	22.6	21.9	23.6
Miscellaneous manufacturing:							
Fabricated plastic products.....	37	12.6	16.1	18.4	15.8	15.4	(⁵)
Optical and ophthalmic goods.....	28	6.2	11.0	11.9	9.7	9.5	(⁵)
Photographic apparatus and materials.....	18	7.2	7.1	6.6	7.0	7.0	(⁵)
Professional and scientific instruments and supplies.....	61	6.5	3.8	9.5	6.5	7.5	(⁵)
Miscellaneous manufacturing, not elsewhere classified.....	158	14.5	14.0	15.4	14.6	14.4	(⁵)

¹ The frequency rate represents the average number of disabling industrial injuries for each million employee-hours worked.

² A few industries have been omitted from this table because the coverage for the month did not amount to 1,000,000 or more employee-hours worked.

³ Number of establishments shown are for June.

⁴ Computed from all reports received for the month; not based on identical plants in successive months.

⁵ Not available.

Industrial Disputes

Strikes and Lock-outs in August 1945

THERE were 410 strikes and lock-outs in August 1945, involving 220,000 workers and 1,350,000 man-days of idleness, according to preliminary estimates of the Bureau of Labor Statistics. Idleness was 19/100 of 1 percent of the available working time. More than 40 percent of the stoppages and over 50 percent of the workers involved in August were in Pennsylvania, Michigan, and Ohio. Of the 410 stoppages during the month, more than 100 were in the mining industries (principally coal), and almost 70 were in plants manufacturing iron and steel and their products.

TABLE 1.—*Strikes and Lock-outs in August 1945, with Comparable Figures for Earlier Periods*

Month	Strikes and lock-outs beginning in month		Man-days idle in month	
	Number	Workers involved	Number	Percent of available working time
August 1945 ¹	410	220,000	1,350,000	0.19
July 1945 ¹	500	290,000	1,500,000	.21
August 1944	501	197,930	958,624	.12
August 1943	310	105,601	356,510	.05
August 1942	330	92,226	448,712	.07
August 1941	465	211,515	1,825,488	.29

¹ Preliminary estimates.

Large August Stoppages

Five stoppages in August, each involving 5,000 or more workers and totaling over 200,000 man-days of idleness, are discussed individually below.

Wright Aeronautical Corporation.—A stoppage on August 3 of about 1,300 workers at the Wright Aeronautical Corporation, Lockland, Ohio, virtually closed the plant, causing idleness for nearly 27,000 workers and stopping production of B-29 engines.

Upon finding it had a surplus of aluminum foundry workers, the company offered these employees transfers to other but lower-paid jobs. Fourteen employees who refused transfers were discharged, and the stoppage followed. The local union, United Automobile Workers (CIO), immediately issued a statement, charging the company with failure to bargain in good faith, with protracted delay in settling over 3,000 grievances, and with denial of settlement in many cases.

The United States Conciliation Service endeavored to bring the management and union representatives together for discussion, but the company refused to participate until work was resumed. On August 7 the union voted to return to work following receipt of a back-to-work order from the War Labor Board and an appeal by the Governor of Ohio. Work was resumed on August 8. A tripartite panel selected by the WLB will consider all grievances.

Inland Steel Corp.—The Inland Steel Corp. plant at East Chicago, Ind., was shut down for the first time since 1937, when over 9,000 workers stopped work from August 10 to 14. The stoppage began when the company penalized a motor inspector (vice president of the local union of United Steelworkers of America, CIO) with a week's lay-off, claiming that he had taken a 2-week unauthorized vacation although in March he had accepted pay in lieu of a vacation. When he was suspended, two other motor inspectors pulled a power switch, thus stopping production in part of the plant. As a result they too were suspended.

By August 11 all employees, with the exception of maintenance workers, were on strike in protest against the suspensions, and the same day the case was certified to the War Labor Board. Requests by the international union president and other union officials to return to work, as well as an order of the War Labor Board, were unsuccessful in getting work resumed. Upon receiving a second order from the Board, with the threat of loss of retroactive pay granted under a previous WLB directive, and a mandate from the CIO president, the strikers voted to return on August 15, leaving their grievances to be investigated by the War Labor Board.

American Steel Foundries and American Steel Castings Co.—A break-down in contract negotiations was responsible for the 11-day stoppage of 8 plants of American Steel Foundries in Illinois, Indiana, Ohio, and Pennsylvania, and a subsidiary, American Steel Castings Co. in Newark, N. J., which involved more than 7,000 employees.

The United Steel Workers (CIO), the bargaining agent for these plants, charged that the company had refused to comply with a War Labor Board order, directing the company to negotiate wages on the basis of comparable rates for similar jobs in nearby plants, and had refused to incorporate the order in the contract under consideration.

The first of the walk-outs began August 9 in East Chicago (Ind.), and spread quickly to plants in Hammond (Ind.), Alliance (Ohio), East St. Louis, Galesburg, and Granite City (Ill.), and Verona (Pa.). On August 13 workers of the Newark plant of the American Steel Castings Co. stopped work.

On August 20 the War Labor Board ordered the union to return to work, pointed out that orderly procedures were available under which union allegations could be considered, and scheduled a hearing in Washington, D. C., on August 29, to investigate the charges. The workers returned to their jobs August 21 or shortly thereafter.

Westinghouse Electric & Manufacturing Co.—The Westinghouse Electric & Manufacturing Co. plant in Lester, Pa., was affected by a 1-day stoppage on August 22, which involved about 8,000 members of the United Electric, Radio and Machine Workers (CIO). The company had announced payless furloughs for about 2,000 workers with 3 years' service or less, which were said to be necessary because of contract terminations. The stoppage lasted only a day, and ended

after the union members approved a temporary agreement providing for immediate reinstatement of the furloughed workers, a 4-day, 30-hour week in certain departments to avoid lay-offs where possible, and a plant survey to determine how many of the 9,000 employees of the company could be retained permanently. Future lay-offs were to be strictly in accordance with the contract which provides for a 3-day notice.

Midvale Steel Co.—A stoppage of about 5,000 employees of the Midvale Steel Co., at Philadelphia, members of an AFL Federal Labor Union, was in protest against the company's refusal to pay for both of the two victory holidays on August 15 and 16. Additional issues related to seniority rights, reemployment of veterans, negotiations with the union prior to posting notices of changes in working conditions, and prompt settlement of grievances. The stoppage began August 21, with the production workers, and spread the following day to white-collar employees, cafeteria workers, and guards. After a picket line was established on the third day all employees, including the maintenance workers who had previously continued to work, were refused admittance to the plant. Efforts of the U. S. Conciliation Service to settle the dispute were unsuccessful, and the stoppage was still in progress at the end of the month.

Other stoppages.—About 2,000 residents of New Jersey and of Delaware County, Pennsylvania, civil employees of the Philadelphia Navy Yard, absented themselves from work on August 6 and 7 in protest against collection of the Philadelphia city wage tax and particularly against arrests of Navy Yard employees for nonpayment of the tax. The stoppage occurred while a proposal, supported by the Wage Tax Protest Leagues of South Jersey and Delaware County, which would exempt Federal workers from double taxation, was pending before the Congress. The men returned on August 8 after sending protests to New Jersey and Pennsylvania members of Congress and the Navy Department, and after tax authorities had promised that no more arrests would be made. Later a compromise settlement was reached under which current wage taxes are to be paid when due, and delinquent taxes are to be paid in installments.

The question of whether newspaper carriers are employees, as held by their union and the National Labor Relations Board, or independent merchants, as held by the St. Louis Newspaper Publishers Association, was the issue in a 22-day stoppage of St. Louis carriers which began August 16. The Newspaper Carriers' Union, affiliated with the International Printing Pressmen's and Assistants' Union of North America (AFL), had been certified as bargaining agent for St. Louis carriers by the NLRB in June 1945, after a ruling by the Board in August 1944 holding these workers to be employees. It had not been granted recognition, however, by the St. Louis Post-Dispatch, Globe-Democrat, and Star-Times. On August 17 the publishers notified the remaining employees that their services would not be required "until further notice." The employees thus affected termed their idleness a lock-out, and demanded payment for the time not worked. On September 1 the idle employees began publication of a new paper, the Daily News, for the period of the dispute. On September 6 a settlement was reached on the original issues, the publishers agreeing to buy the carriers' routes and bargain with them as employees over

wages, hours, and working conditions. They also agreed to pay full salaries to employees laid off because of the dispute.

Over 70,000 man-days of idleness resulted from a 19-day stoppage at the United States Rubber Co., Mishawaka, Ind. The immediate cause was the discharge of a worker for allegedly striking a time-study engineer. The United Rubber Workers (CIO) held that changes had been made in work standards without proper wage adjustments, and that these amounted to a wage reduction.

Stoppages in the bituminous-coal mines of Illinois, Kentucky, Tennessee, Virginia, and West Virginia in protest against the meat shortage, and at the Pittsburgh Plate Glass Co., Creighton, Pa., over nonpayment of union dues, each caused more than 30,000 man-days of idleness.

Members of the International Woodworkers of America (CIO) employed at a number of sawmills and logging operations in Oregon, caused considerable idleness in their strike for a union shop.

A stoppage of about 4,500 workers at the Kelsey-Hayes Wheel Co., Detroit, caused more than 30,000 man-days of idleness at this plant in August. The dispute was still unsettled at the end of the month and, by cutting off supplies of parts, it halted production in several major plants in the automotive industry during late August and September.

Activities of U. S. Conciliation Service, July 1945

DURING the month of July 1945, the U. S. Conciliation Service disposed of 1,935 situations as compared with 2,363 situations in June. During July of the previous year 2,207 situations were closed.

Of the 230 strikes and lock-outs handled, 203 were settled successfully; 27 cases were certified to the National War Labor Board in which strikes occurred during negotiations, but in 12 cases a commissioner of conciliation had effected a return-to-work agreement prior to certification of the case. The records indicate that 218 situations were threatened strikes and 1,251 were controversies in which the employer, employees, or other interested parties asked for the assignment of a conciliation commissioner to assist in the adjustment of disputes. During the month 451 disputes were certified to the National War Labor Board. The remaining 236 situations included 104 arbitrations, 13 technical services, 40 investigations, and 79 requests for information, consultations, and special services.

Cases Closed by U. S. Conciliation Service in July 1945, by Type of Situation and Method of Handling

Method of handling	Total	Strikes and lock-outs	Threatened strikes	Controversies	Other situations
All methods.....	1,935	230	218	1,251	236
Settled by conciliation.....	1,248	203	181	864	-----
Certified to National War Labor Board.....	451	27	37	387	-----
Decisions rendered in arbitration.....	104	-----	-----	-----	104
Technical services completed.....	13	-----	-----	-----	13
Investigations, special services.....	119	-----	-----	-----	119

¹ Of these, 12 were settled prior to referral.

Labor Organizations and Conventions

Convention of Marine Cooks and Stewards of Pacific Coast, 1945¹

THE constitutional convention of the Marine Cooks and Stewards of the Pacific Coast was held July 23-28, 1945. This was the first convention held since the organization of the union in 1901.²

Between 1941 and 1945 the union's membership had increased from 4,500 to about 15,000 and the number of branches had increased from five (all on the Pacific Coast) to nine³ (including six in Atlantic and Gulf ports).

This rapid wartime increase in numbers and the expansion of coverage from a regional to a national basis brought new situations and problems that made apparent the inadequacy of the existing union organization. San Francisco had been the headquarters during the union's entire period of existence. Now the same officials who had formerly dealt with problems which concerned San Francisco as a single port became responsible as well for those which represented issues national in scope. The inability of the national officers, confronted by a dual set of problems, to devote sufficient time to the membership as a whole in all ports and on all ships had become a subject of general dissatisfaction. It should be noted, however, that steps had been taken during the first half of 1945 to appoint a port agent, who would, in large measure, assume charge of San Francisco problems, thus withdrawing purely local matters from the consideration of the national officers.

The primary task for the attention of the July meeting was that of creating a representative national organization. To this end the meeting adopted a new constitution, subject to confirmation by referendum. Other measures adopted related to political action, wage policy, and an educational program.

Structural and Organizational Changes

The convention changed the name of the union to National Union of Marine Cooks and Stewards. San Francisco was retained as the national headquarters city.

The new constitution, which was adopted by the convention, is to go into effect as soon as the general membership of the union approves it on a referendum ballot. It provides for a biennial convention, consisting of the members of the general council and delegates elected

¹ Prepared in the Bureau's Wage Analysis Division by Anita H. Bradley, of San Francisco regional office.

² Year of formation as given in foreword to union's new constitution. Ira Cross (in *History of the Labor Movement in California*, p. 336) gives the organization date as October 1892.

³ The nine branches are in the following cities: San Francisco, Seattle, Portland, Wilmington, Honolulu, New York, Baltimore, Norfolk, and New Orleans.

from the various branches and ships, which is to become the supreme governing body of the organization. Between conventions, the general council, consisting of a president, vice president, secretary-treasurer, and port agents, is to serve as the administrative body, meeting every 6 months. In the interval between these meetings, an executive committee will carry on the business of the union.

Each port (including the port of San Francisco) will have its own office, managed by a port agent and patrolmen.

Under the new system, any qualified member may be nominated and accept office, whether he is on shore or on ship. Nominations and elections are to be held every 2 years instead of every year.

Of some significance also is the change introduced in the much-debated length of the probationary period for members. Under the new constitution the probationary period has been halved. Workers are thus eligible for full-book membership, provided they have held probationary cards for 6 months (formerly 12) and have "4 months discharges."

Union benefits.—The new constitution provides, for full members in good standing, funeral benefits of \$200 (formerly \$100), shipwreck benefits up to \$150 (formerly \$75) in certain cases, and hospital benefits to be determined by the general council.

Program of Political Action

The program of political action adopted followed that which the national Congress of Industrial Organizations advocates generally. Considerable stress was placed on the relation of the members of the union and of their program to problems affecting other trade-unions as well as the community as a whole.

The preamble to the new constitution urged political action over a broad field, mentioning the need of workers to unite in order "to attain the economic, social and political welfare of the communities in which they work and live and of all peoples." The report of the legislative committee submitted to the convention set forth a detailed program for political action. It included measures of specific interest to seamen, such as the enactment of a seamen's bill of rights, and of a realistic ship-sale bill to encourage the full operation of the American merchant marine and to prevent too great an industrial dislocation and disunity. Emphasis was given to a guaranteed annual wage for seamen, a guaranteed maximum of work throughout the year, and the passage of the Pepper bill providing an hourly minimum rate of 65 cents. The remaining items in the program were those of general public welfare, such as the passage of the Wagner-Murray-Dingell Social Security Bill, the bill providing for fair employment practices, a measure outlawing the poll tax, etc.

Educational and Service Program

In the educational and service program adopted by the convention, considerable emphasis was laid on the plan to sponsor a series of training classes for new or probationary members as well as for delegates. The latter were to be given "leadership courses" intended to familiarize them with union problems, the terms of the contract under which they were employed, the policy of the union, shipping rules, etc.

Consideration was given to the desirability of classes sponsored on a national scale by the U. S. Maritime Commission, the War Shipping Administration, the shipowners' associations, and the unions. Discussions emphasized the desirability of developing a highly trained steward's department personnel, with courses to meet the needs of "entry ratings" as well as of men with some service at sea who wish to prepare for higher-grade jobs.

Among the union services announced were a newly formed credit union and recreational and personal advisory service in the union halls.

Wage Policy

In the field of wages and working conditions certain general gains were noted. Up to March 1945 the union had obtained Sundays and holidays off in all ports; overtime for any time worked on Saturday afternoons, Sundays, and holidays; an increase of overtime rates to 85 and 90 cents per hour; a 10-percent explosives bonus; incorporation of the \$17.50 emergency increase into basic wage rates; increase of stand-by pay and stand-by overtime; improved manning scales for Victory and C-type vessels; improved living and working conditions on C-type vessels; linen penalty pay; vacations with pay; increase in subsistence; 8-hour day for most ratings on class A and some class B ships; elimination of some inequities in the Alaskan trade; and payment for port-security watches.

The issues for future negotiation were indicated as follows:

1. Minimum hourly rate of 55 cents.
2. Proportionate upward revision of wage rates for men in the higher brackets, thereby retaining the existing differentials among the various job ratings.
3. A 40-hour week applied to all workers in port as well as at sea, with extra compensation for all work in excess of 40 hours.
4. Improvement of living and working conditions, and provision of recreational facilities aboard all types of ships.
5. Elimination of combination jobs; and an increase in manning scales, with consideration given to the physical structure of particular types of ships as well as to the size of the crews carried.
6. Time off in the home ports, with either relief crews supplied or cooking eliminated.
7. Recognition of the right of night workers to a wage differential.
8. Extra compensation for combination jobs such as cook-steward, galleyman-crew mess, and division of 50 percent of the missing steward's base pay as compensation for the extra work in each rating necessary under the combination manning.



Organization of Labor in Rumania

A DELEGATION of Rumanian trade-union representatives visited Moscow in July and gave the press an account of recent trade-union developments in their country. According to summary published in Pravda (Moscow), July 27, 1945, the trade-union movement in Rumania was revived in the summer of 1944, after the overthrow of the Antonescu regime on August 23 and the restoration of the demo-

cratic constitution of 1923. On September 1, the provisional central committee for the restoration of trade-union organizations was created, and a basic program was formulated for the promotion and unification of trade-unions. By the end of January 1945, the General Confederation of Labor, representing every trade-union in the country, was formed with an initial membership of 580,000. Trade-union membership increased rapidly and by July 1, 1945, numbered 1,100,000 (out of a total of 1,800,000 manual and white-collar workers)—an all-time high for Rumania.

Of the 1,100,000 trade-union members, 780,000 were manual workers and 320,000 were white-collar workers. The largest union was that of metalworkers, with 151,000 members. The railroad unions included 130,000 members; the textile unions, 80,000; and the oil-industry unions, 80,000.

On March 6, 1945, when the National Democratic Front came into power, a representative of the trade-unions was given the post of Minister of Social Security. The new Government quickly introduced a program for the improvement of the economic life of the country. All production and distribution of economic goods came under strict State control for the purpose of maximum production and the prevention of market manipulations by speculators. Measures were initiated to stabilize prices and to increase workers' real wages.

The Rumanian General Confederation of Labor, it was stated, is willing to cooperate with the trade-union organizations of other countries, and had decided to participate in the World Trade Union Conference to be held in Paris in September 1945.



Fusion of Trade-Union Movements in Union of South Africa

ANNOUNCEMENT was made by the South African Trades and Labor Council,¹ that on July 1, 1945, the Cape Federation of Trade Unions joined the Council, leaving only the Eastern Province Trades Council and the Western Province and District Council of Trade Unions in operation as independent trade-union movements. The expectation existed that the Eastern Province Trades Council would also join the council in a short time.

The membership of the Trades and Labor Council was composed of 84 trade-unions having approximately 190,000 members.² Unions belonging to the Council were not required to affiliate on the basis of full membership but could join on any basis that they considered fitting. This policy was established to permit those bodies that were not strong financially to participate in a national movement without too great a burden. Only two unions—the South African Reduction Workers' Association and the Garment Workers Union—were affiliated on full membership. Two-thirds of the remaining unions were affiliated to the extent of about half their membership. In considering the affiliation of member unions at full strength, reduction of the fee to 1d. monthly (from the 2d. rate in effect) was suggested.

¹ Ambag (Official Journal of the South African Trades and Labor Council), July 1945 (pp. 11 and 17).

² The preliminary official trade-union membership total for 1943 was 283,762.

Labor Laws and Decisions

Recent Decisions of Interest to Labor¹

Labor Relations and Industrial Disputes

REPRESENTATION elections to be held as usual, despite reduction of personnel.—The National Labor Relations Board has ruled that a mere reduction of the employer's working force, now in progress, which did not involve a material change in the appropriate unit or new or materially different operations or processes, is not a sufficient reason for extending the date set for an employee election. (*In re Bernard Shapiro et al.*, d. b. a. Reliable Nut Co., 63 NLRB 52.) The prospective change in the company's operations involved only a reduction in the size of the appropriate union. The Board pointed out that such reductions in personnel must not be confused with cases involving company expansion and introduction of entirely new operations.²

Employees, seeking an earlier date for the election, claimed the employer was taking advantage of the necessity for reduction to discourage union activities. The Board, refusing the union's request, pointed out that the fact that a company had been laying off employees since April 1945 "does not, per se, afford any basis for altering the usual eligibility date."

Unlawfully discharged employee, by striking, forfeits back pay.—An employee who was discharged for union activity would ordinarily be entitled to back pay until reinstated. However, in *Union Mfg. Co. and Amalgamated Clothing Workers of America* (63 NLRB 39, August 10, 1945) the National Labor Relations Board ruled that the employee forfeited her back pay by refusing to return until the employer ceased unfair labor practices. By this refusal the employee became a striker, and strikers are not entitled to back pay unless they make unconditional request to return to work and such request is refused.

Judicial remedy against union interfering with bargaining order.—The National Labor Relations Board had ordered an employer to deal with the certified union and had brought judicial proceedings to have the order enforced. The employer's only reason for refusal to comply with the order was the threat of strike by a rival union. The employer, therefore, petitioned the court to draw its enforcement order so as to protect him from strikes and boycotts by the rival union. The Second Circuit Court, saying it was "not convinced of the necessity of expressly restraining" the rival union, concluded that

¹ Prepared in the Office of the Solicitor, Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

² As for example, *In re Armour & Co.*, 63 NLRB 156.

"if an attempt to prevent the companies from complying with our order should be made it would seem that the ordinary contempt procedures available against a person with knowledge of the decree although not named in it would enable the court to protect its order." (*National Labor Relations Board v. National Broadcasting Co., Inc.*, C. C. A. 2, July 27, 1945.)

Friendliness and minor contributions to inside union not domination.—The National Labor Relations Board refused to find that unfair labor practices existed, in a case in which the charge was based on the fact that the employer made minor contributions to social functions but the success of the social functions did not depend on such contributions.³ The union had been formed spontaneously several years before and aggressively represented the employees in a very friendly atmosphere. No trouble had arisen until another union challenged its position as bargaining agent. The employer's approval of the way the inside union conducted itself was held not to be sufficient to prove domination, even when combined with the other factor of contributions.

National War Labor Board

Establishment of company-union postwar fund denied.—The National War Labor Board affirmed a regional board decision⁴ which denied approval to a joint company-union proposal for a postwar employment fund. Under the proposed plan the employer would make weekly payments, equal to 5 percent of the pay roll, into the fund. A trustee was to be appointed and would purchase Government bonds which would not be available to the employees until a certain date, and no employee was to have the power to assign or realize any money on the bonds standing to his credit. The Board, in denying approval, ruled that this constituted a deferred wage payment and was contrary to the wage-stabilization policy.

"Right to work" amendments of State subject to War Labor Board.—Further strengthening its stand in the *St. Joe Paper Co.*⁵ case, the National War Labor Board granted to a union the continuance of a closed-shop clause negotiated with a predecessor owner of a Florida radio station.⁶ The Board, despite the contrary contention of the attorney general of Florida, ruled that the Board's power stems from an act of Congress and therefore is not subject to State laws or State constitutions which declare closed shops unconstitutional.

War Labor Board guaranteed annual wage.—The National War Labor Board granted a union request for a guaranteed annual wage⁷ and denied review of the regional board's order which provided that "regular full-time employees shall be guaranteed 44 hours of work per week for 52 consecutive weeks per year. Regular part-time employees shall be guaranteed employment for 5 nights and a Saturday weekly for 52 consecutive weeks." The Board also granted the union's demand that the guaranteed annual wage plan should not be subject to arbitration. However, it overruled the regional board's order

³ *Mallinckrodt Chemical Works* (St. Louis, Mo.), 63 NLRB No. 55, Aug. 17, 1945.

⁴ *Luggage & Leather Goods Mfrs. Assn. of New York*, NWLB Case No. 2-26153, June 4, 1945.

⁵ Discussed in *Monthly Labor Review* for September 1945 (p. 504).

⁶ *In re Radio Station WFTL*, NWLB Case No. 111-9032-D, July 5, 1945.

⁷ *In re Melville Shoe Corp.* (New York, N. Y.), National War Labor Board Case No. 111-6642-D, June 20, 1945.

granting employees 6 days of sick leave with pay per year. The Board declared it would not order sick-leave plans in dispute cases in the absence of two "unusual" circumstances: (1) That unusual health hazards justify paid sick leave, and (2) that comparison of total benefits under other plans in operation in the same company indicate an inequity to the employees involved in the particular dispute.

Severance pay denied in aircraft industry.—The National War Labor Board refused to order a severance-pay plan, basing its refusal on the fact that it has always been known the aircraft industry in the postwar period would be considerably smaller than other industries.⁸ The Board pointed out that virtually the entire aircraft industry today is financed by the Government, and any severance plan would either be Government financed or would put a tremendous load on individual companies, forcing them to make severance payments "far in excess of their normal pay roll." This, said the Board, would be grossly inequitable. The Board took the position that any severance-pay plan should be developed either by voluntary agreement of the parties or by legislation, not by Board order.

Union-security clause denied to noncertified union.—The National War Labor Board, overruling a regional board order,⁹ denied a union-security clause in a case in which the union had not been certified or recognized as the bargaining agent of the employees because the company was an intrastate enterprise exempt from the National Labor Relations Act and there was no State labor relations act. The union claimed that it represented a majority of employees doing essential work and the National War Labor Board should take jurisdiction on the issue of maintenance of membership. In the same decision the National Board affirmed the regional board's decision establishing a procedure for the handling of grievances of union and nonunion employees.

Unlawful picketing in jurisdictional dispute.—In a case involving a suit by an employer for an injunction, rival unions were engaged in a jurisdictional dispute over the right to represent a certain group of employees following an award by the National War Labor Board. A California court found that the employer was placed in the position of being unable to prevent a work stoppage and that the successful union created such a large picket line that much damage was done and workers were intimidated.¹⁰ The court held that the union had the right to maintain a picket line to compel the employer to abide by the award, but that the employer was entitled to an injunction restricting the number of pickets and restraining such phases of picketing as were not carried on in a lawful and peaceful manner.

Fair Labor Standards Act

Agency supplying guards to plants held to be in interstate commerce.—Further defining the position of plant guards, the District Court for the Middle District of Pennsylvania in *Salvo v. Keating* (August 2, 1945), held that even though a detective agency is not in interstate

⁸ *Consolidated Vultee Aircraft Corp.* (Stinson Division, Grand Rapids, Mich.), NWLB Case No. 111-14127-D, July 10, 1945.

⁹ *Polk Sanitary Milk Co.* (Indianapolis, Ind.), NWLB Case No. 111-1826-D, July 17, 1945.

¹⁰ *Goldwyn v. Screen Set Designers, Illustrators & Decorators Local No. 1421*, Calif. Superior Ct., Los Angeles County, Aug. 13, 1945.

commerce, when it furnishes guards to plants doing interstate business it must conform to the requirements of the Fair Labor Standards Act and must pay time and a half to employees for all time worked in excess of 40 hours per week.

Waiver of liquidated damages under Fair Labor Standards Act ineffective.—The Circuit Court of Appeals, Second Circuit, ruled that even when there is a bona fide dispute as to the applicability of the Fair Labor Standards Act, and the employer, vigorously asserting the nonapplicability of the act, paid the overtime wages due and obtained releases from the employees, this did not make the waiver enforceable. (*Gangi v. D. A. Schulte, Inc.*, C. C. A. (2d Cir.) July 20, 1945.) The Court held that the case came within the principle of *Brooklyn Savings Bank v. O'Neill*¹¹ (65 Sup. Ct. 895), even though there had been no bona fide dispute in that case. The Court also relied on the case of *Dize v. Maddrix*¹¹ (65 Sup. Ct. 895) and concluded that "use of a disagreement as to the legal interpretation of the act, turning upon the nature of the employer's business, as a basis for reducing payments under those required by the act, appears definitely prohibited by the O'Neill case."

Power of Wage and Hour Administrator to require home-work certificates.—The District Court for the Southern District of New York held, in *Walling v. Cimi Embroidery & Novelty Co., Inc.* (S. D. N. Y., August 10, 1945), that the company had failed to procure special home-work certificates prescribed by the Administrator's order and had failed to keep proper records through the use of homework books. Under the circumstances a decree was entered enjoining continuing violations.

Decisions of State Courts

No-strike contract defeats State Board's orders.—An employer, on the basis of a no-strike contract, obtained an injunction against striking employees under which he was not required to rehire them.¹² The New York Labor Relations Board later decided the contract was invalid, that the strike was due to unfair labor practices, and that the strikers were entitled to reinstatement. The New York Court of Appeals held that the State Board was within its rights in investigating the dispute and issuing its order, but since the court had previously determined in effect that the contract was valid and had been violated by the strike, the employer did not have to follow the Board's order regarding reinstatement of striking employees.



Law Providing Land for Farmers in Turkey¹³

A LAW providing land for farmers in Turkey who do not own land or who own insufficient land was ratified by the Grand National Assembly of Turkey on June 11, 1945, after long and active debate. The lands are to be distributed by the Ministry of Agriculture, and may include properties formerly owned by the State, parts of lands owned

¹¹ Discussed in Monthly Labor Review, June 1945 (p. 1263).

¹² *New York State Labor Relations Board v. Holland Laundry, Inc.* (C. A. N. Y., July 20, 1945).

¹³ Data are from reports from United States Embassy, Ankara, by Laurence A. Steinhardt, Ambassador, February 8, 1945 (No. 1064), and Edward B. Lawson, commercial attaché, June 27, 1945 (No. 97).

jointly by villages or by a city, and reclaimed and expropriated lands. Provision is made for the Government to pay for expropriated lands, for financing the farmers' payments through the T. R. Agricultural Bank, and for supplying farmers with animals, seeds, and equipment. No accurate figures on the acreage that may be involved are available. During debate, it was asserted that the legislation would affect directly some 128,700 landless families and some 872,800 families with very small acreages—including in all about 5,000,000 of the Turkish population of 18,000,000.

The main purposes of the legislation are (1) to provide farmers with sufficient land to enable them to support themselves and their families, (2) to furnish, to those who have land, the capital needed for improvements and operation, as well as equipment and animals, and (3) to insure the continuous cultivation of the nation's land.

Distribution of Land

Persons eligible to receive land.—Under the terms of the law, land may be distributed to Turkish citizens with full civil rights, who are farmers and heads of families, or to citizens without families who are capable of establishing farms. A farmer is defined, for the purpose of land distribution, as a person engaged continuously in the production of plant, mineral, or animal products through the sowing, planting, and cultivation of the soil.

Among heads of families, preference in the distribution of land is to be given in the following order to (1) those who do not own land but work on land as partners or tenants, (2) those who have insufficient acreages, (3) those who do not own land and have supported themselves for long periods as agricultural laborers, (4) nomads and those engaged in farming who might be forced to emigrate, (5) those graduates of agricultural or veterinary schools, or those who have completed agricultural courses recognized by the Ministry of Agriculture, who do not own land or who own insufficient land, and (6) those who, although not previously engaged in farming, are believed by the Ministry of Agriculture to be willing to go into that occupation.

Persons who receive land must cultivate it themselves. If tracts acquired through the operation of the act are left idle or are operated under a partnership, the Ministry of Agriculture may request seizure through the courts, to enable redistribution of the tracts to others.

Land available for distribution.—The various regions of the country are to be examined, to determine the acreage available. Distribution is to be carried out by the Ministry of Agriculture.

Land subject to distribution includes properties owned jointly by villages or by a city, which the Ministry of Agriculture decides are in excess of requirements; land having no owner, and that obtained by draining swamps owned by no one; tracts gained by draining lakes or filling rivers; and expropriated areas.

The Ministry of Agriculture is authorized to expropriate for the purpose of distribution to eligible citizens (1) tracts of land, together with farms, buildings, and installations on them, which are estates mortmain held under certain conditions by the General Director of Estates Mortmain, (2) land owned by municipal authorities, which is not used for the benefit of the public, (3) land not cultivated after the enforcement of this law, and (4) "parts of lands" belonging to private

or juridical persons which are in excess of 5,000 dönüms,² with the exception (on decision of the Cabinet) of tracts in excess of 5,000 dönüms, owned by societies working for the benefit of the public, by State economic organizations and institutions, or by companies of which the State holds more than half of the capital—provided that such lands are put to use. The Ministry may also expropriate (5) lands (but not property, such as stores, mills, vineyards, etc., thereon) acquired after October 1944; and (6) for distribution to eligible farmers and agricultural laborers (not temporary agricultural laborers) lands operated by partners, tenants, and agricultural laborers, provided that there is left to the owner three times as much land as is distributed to farmers receiving land (a farmer, it is stipulated, is to receive "land sufficient to support his family and permit the realization of their labor"). In no case may the land left to the owner be less than 50 dönüms.

Data on the sizes, characteristics, and values of tracts (and of buildings and installations on such tracts) which the Ministry of Agriculture has decided to expropriate, as well as the decisions of expropriation, are to be sent to the governors of the respective districts in which the expropriated lands are situated. The decisions are also to be announced through the newspapers or posted at the sites of the expropriated tracts.

Financing the land distribution.—The cost of the expropriated land is to be met by 20-year treasury bonds, designated "Soil Bonds," which will be issued each year upon the proposal of the Ministry of Agriculture and by decision of the Cabinet, and bear 4 percent interest.

Farmer applicants who receive land under the terms of the act are to be bound by indebtedness contracts and be financed by the T. R. Agricultural Bank. The Bank is to prepare noninterest-bearing bills representing the value of the properties to be distributed, which will fall due in 20 years beginning from January of the sixth year following the indebtedness contract. The total indebtedness of an applicant receiving land is to be adjusted to the number of members of his family, by deducting 5 percent of the remaining indebtedness from the total debt obligation for each child who reaches the age for entering primary school. A discount of 5 percent is to be given also on payments which are made before the date fixed.

Assistance for Farmers

In order to assist farmers in establishing their farms, the Law Providing Land for Farmers stipulates that seeds, young trees, and breeding animals from stations of the Ministry of Agriculture may be distributed to persons who acquire land under terms of the law. It is also provided that animals and equipment for small farms may be obtained on an installment basis from the Agricultural Furnishing Organization (*Zirai Donatim Kurumu*).

Farmers who need financial help in the erection of buildings or installations on the farms may obtain loans from the Agricultural Bank, repayable in 20 years. The interest rate (not to exceed 5 percent) is to be determined by the Ministries of Finance and Agriculture. Credits to insure the cultivation of lands may also be given the Agricultural Bank in amounts to be set by the same ministries.

² Dönüm=0.227 acre.

Wage and Hour Statistics

Wages in the Basic Lumber Industry, 1944¹

Summary

BETWEEN the fall of 1939 and August 1944 straight-time hourly earnings in the basic lumber industry increased from 51 cents to 72 cents per hour, a gain of 41 percent. During the same period hourly earnings rose from 76 cents to \$1.18 in the West, from 40 cents to 73 cents in the North, and from 34 cents to 52 cents in the South. These figures are relatively free from the influence of overtime payments. The statistics for August 1944 were based on reports from 2,651 companies maintaining 4,168 operations and employing 184,446 workers. In the various branches of the industry, straight-time hourly earnings in August 1944 averaged 67 cents in sawmills, 78 cents in logging camps, 53 cents in cooperage stock mills, \$1.45 in shingle mills, 52 cents in veneer mills, and 73 cents in plywood mills. Representative of regional differences in hourly earnings, common-labor entrance rates were highest in the West, next highest in the North, and lowest in the South.

For more than a third of southern workers straight-time hourly earnings averaged less than 50 cents, and for more than three-fourths the average was under 55 cents. The majority of western workers earned over \$1.00 an hour, while in the North the greatest concentration was between 60 cents and 80 cents.

In the West, the only region where a large number of lumber companies operate under union contract, straight-time hourly earnings of union workers did not differ significantly from the earnings of non-union workers. In practically all sectors of the basic lumber industry, time workers earned less per hour than workers employed on an incentive basis. The incentive method of wage payment, however, covered only a small proportion of the workers in this industry.

The absolute gain in straight-time hourly earnings between the fall of 1939 and August 1944 for workers in skilled occupations was generally no greater than for the less-skilled occupations. On a percentage basis, the wage increases for skilled jobs were generally lower than for the less-skilled jobs.

The most common workweek schedule in the West was 8 hours a day and 48 hours a week; in the North, where a shorter workweek was common, this schedule was observed by less than two-fifths of the

¹ Prepared in the Bureau's Wage Analysis Branch by Carrie Glasser. Victor S. Baril planned and directed the survey, assisted by Norbert Prager, W. C. Quant, and John Standish. The field work was done under the direction of the wage analysts in the Bureau's regional offices.

The Bureau acknowledges its indebtedness to both unions and management for their cooperation in this survey. For valuable assistance given by several Government agencies, particularly the Forest Service, the Bureau wishes to express its appreciation.

operations. In the South more than half of the operations were working a 40-hour week and 8-hour day. Practically all of the operations in the basic lumber industry paid time and a half for overtime after 40 hours a week, while in about one out of four the premium rate was also effective after 8 hours a day.

Single-shift operation was typical of most lumber operations. The practice of paying a differential when more than one shift was worked was more common in the West than in the North and South, as was also the provision of paid vacations. About half of western logging camps and sawmills and all the shingle mills in that region had paid-vacation plans at the time of this survey. Six holidays throughout the year were indicated for 58 percent of Western operations, 28 percent of Northern operations, but only 9 percent of Southern operations. Time and a half was the most common rate of pay for holidays worked.

Scope and Method of Survey

The Bureau of Labor Statistics has collected and made available a considerable amount of information on wage rates by occupation and locality in a large number of industries. The present Nation-wide study of wages in the basic lumber industry, undertaken during the fall of 1944, is one in this series of industry wage studies.² The immediate purpose of this study was to provide the National War Labor Board with data for use in connection with the stabilization of wages in the lumber industry. The study should also prove useful to both labor and management in collective bargaining and should provide the factual background necessary in the development of the lumber industry in the postwar period.

The basic lumber industry is concerned with the production and preparation of raw forest materials for the use of secondary industries which manufacture finished lumber and timber products. Logging camps and sawmills are the most important branches from the standpoint of both total production and number of workers employed. The basic lumber group also includes four smaller branches—namely, shingle mills, cooperage-stock mills, veneer mills, and plywood mills. All six branches were included in the present study of the industry.

Logging camps, sawmills, and plywood mills are found in all regions and were surveyed in each. Veneer and cooperage stock mills are comparatively unimportant in the West and were, therefore, not covered in that region. For the same reason, shingle mills, which are concentrated almost entirely in the Douglas Fir district of the West, were not studied outside of that region.

Information was obtained from a representative sample of companies³ and operations⁴ in the six branches of the industry. The various operations in each of the branches were not sampled in the same proportion, and for that reason it was necessary in combining

² A report covering one region of the basic lumber industry appeared under the title, *Wages in the Basic Lumber Industry in the Far West, 1944*, in the *Monthly Labor Review*, July 1945. The results of a 1939-40 survey of this industry were reported in the article, *Hourly Earnings in the Lumber and Timber Products Industry*, in the *Monthly Labor Review* for July 1941.

³ In selecting the sample of companies and operations to be studied, full consideration was given to all important factors which influence wages, such as size and type of operation, corporate affiliation, geographical distribution, and unionization.

⁴ The term "operation" relates to a single segment of the industry such as a logging camp, a sawmill, a shingle mill, etc. In the case of partially or completely integrated companies, each segment was counted separately. For example, a company which did both logging and sawmilling was included in both the logging camp and sawmill counts.

the data to assign different weights to the respective branches so that each might be represented in proportion to its importance in the industry. Data were actually obtained from 2,651 companies maintaining 4,168 operations and employing 184,446 workers. The figures which appear in the final tabulations represent the results after weighting. This weighting yielded a total of 17,772 operations and 455,931 workers, which are believed to represent the approximate size of the basic lumber industry as defined in this study. Table 1 shows in further detail the size of the sample upon which this study was based and the estimated total number of operations and workers represented.

TABLE 1.—*Number of Operations and Workers in Operations Surveyed, and Estimated Total in Basic Lumber Industry, by Region and District, August 1944*

Region and district	Actually surveyed		Estimated total represented	
	Number of operations	Number of workers	Number of operations	Number of workers
Total, United States.....	4, 168	184, 446	17, 772	455, 931
Total, West.....	716	63, 851	2, 174	135, 152
Douglas Fir region.....	334	31, 821	1, 057	73, 000
Western Pine region.....	353	27, 268	1, 035	53, 899
Redwood region.....	29	4, 762	82	8, 253
Total, North.....	1, 084	32, 944	2, 653	57, 314
Prairie.....	62	1, 567	64	1, 718
Lakes.....	237	13, 148	607	20, 604
North Central.....	256	6, 254	447	10, 354
Middle Atlantic.....	252	4, 597	559	8, 067
New England.....	277	7, 378	976	16, 571
Total, South.....	2, 368	87, 651	12, 945	263, 465
Southeast.....	1, 841	55, 868	11, 378	198, 242
Southwest.....	527	31, 783	1, 567	65, 223

Wage data were obtained only for key occupations which are believed to be representative of the range of skills and wages in the six branches of the industry. Roughly three-fourths of all the workers in the industry are employed in these key occupations. In order to insure as full comparability as possible among occupations, the Bureau's field representatives used uniform job descriptions in classifying workers in the operations studied. A careful check was also made of significant duties performed in each of the selected key occupations and any important variations were reported. On the basis of this supplementary information on duties performed by workers, it was possible for the Bureau to overcome interplant variations to a considerable extent and to arrive at occupational classifications that are believed to be dependable.

Three broad lumber-producing regions were covered—the West, the North, and the South. The West⁵ includes the three Pacific Coast States and eight States in the Rocky Mountain area. The North includes the Prairie States, Lake States, North Central States, Middle Atlantic States, and New England. The South includes nine Southeastern and four Southwestern States.

⁵ This region is broader than the region covered by the special report for the Far West published in the Monthly Labor Review, July 1945. The Far West, as defined for purposes of that report, covered only five States, namely California, Idaho, Montana, Oregon and Washington. The lower Rocky Mountain States were not included.

The wage data for most operations relate to a pay-roll period in August 1944 and represent straight-time average hourly earnings, excluding premium payments for overtime and work on late shifts. These earnings include incentive payments derived from piecework and production-bonus plans, but exclude nonproduction bonuses. In order to show the differences in average hourly earnings for workers paid on a straight-time basis and those employed on an incentive basis, special tabulations were made for each group.

The figures presented in this report depict the general level and distribution of wages in each of the branches and regions studied. Because of rather wide differences in the nature of the industry, regional comparisons, particularly on an occupational basis, should be made with caution.

Wages in the Basic Lumber Industry

TREND SINCE AUGUST 1939

In the basic lumber industry, as defined in this survey, average hourly earnings increased from 51 cents in the fall of 1939^a to 72 cents in August 1944. Although overtime pay at premium rates was included in the earlier data, the figures for both periods are believed to be comparable, because very little overtime was actually worked in the fall of 1939. In both periods average hourly earnings were highest in the West and lowest in the South, with the North falling in between these two. However, the percentage gain between the fall of 1939 and August 1944 was greater in the North than in the other two regions. Earnings in the North rose from 40 cents to 73 cents per hour, a rise of 82 percent. The corresponding change for the West was from 76 cents to \$1.18, an increase of 55 percent, and for the South, from 34 to 52 cents, an increase of 53 percent.

The change in straight-time average hourly earnings for each of the six branches is shown below:

	Fall of 1939	August 1944	Percent of change
Logging camps.....	\$0. 60	\$0. 78	+30. 0
Sawmills.....	. 48	. 67	+39. 6
Cooperage-stock mills.....	. 37	. 53	+43. 3
Shingle mills.....	. 95	1. 45	+52. 6
Veneer mills.....	. 37	. 52	+40. 5
Plywood mills.....	. 49	. 73	+49. 0

ENTRANCE RATES OF COMMON LABORERS

The entrance rates of pay of common laborers provide one medium for comparing wage levels in the lumber-producing regions and in various branches of the industry. In general, entrance rates in 1944 were highest in the West, next highest in the North, and lowest in the South. In the West these rates followed closely the minimum rates set by the West Coast Lumber Commission for unskilled workers in the various wage-stabilization districts: 90 cents in the Douglas Fir district, 87.5 cents in central Oregon and northern California, 85 cents in central California, 82.5 cents in the Inland Empire, Snake River and Redwood

^a The findings of the first survey were published in the Monthly Labor Review, July 1941. This earlier study covered more lumber branches than the present survey. In comparing hourly earnings for the two periods, however, only data for the same branches were used.

districts, and 80 cents in central Washington. Substantially lower entrance rates, between 60 and 65 cents an hour, were paid in the lower Rocky Mountain district.

In over half of the basic lumber operations in the North common laborers received 50 cents or more an hour, and in a substantial number of operations they received 60 cents or more an hour. In the South the most common entrance rate was 40 cents an hour, the statutory minimum established under the Fair Labor Standards Act. More than two-fifths of Southern sawmills, nearly half of the logging camps, and a half or more of the veneer, cooperage-stock, and plywood mills had a 40-cent entrance rate. A third of the Southern logging camps, a fourth of the sawmills, and a fifth of the veneer and cooperage-stock mills paid 50 cents an hour. Less than a tenth of the plywood mills, however, had a common-labor entrance rate as high as 50 cents.

REGIONAL VARIATIONS IN HOURLY EARNINGS

Under General Order 30 of the National War Labor Board, employers at the time of this survey could raise wage rates to 40 cents an hour without first obtaining the Board's approval. From table 2, which shows the percentage distribution of workers in the basic lumber industry according to straight-time average hourly earnings in August 1944, it is apparent that no workers in the West, only 0.1 percent of Northern workers, and 0.6 percent of Southern workers, received less than 40 cents an hour. General Order 30 was revised on November 11, 1944, permitting voluntary wage and salary increases which did not bring rates above 50 cents; on May 23, 1945, the level was raised to 55 cents.

TABLE 2.—*Percentage Distribution of Workers in Basic Lumber Industry, by Straight-Time Average Hourly Earnings and Region, August 1944*

Average hourly earnings (in cents)	Total U. S.	West	North	South	Average hourly earnings (in cents)	Total U. S.	West	North	South
Under 40.0	0.4		0.1	0.6	97.5, under 100.0	1.2	4.1	0.6	0.1
40.0, under 42.5	12.1	(1)	1.2	19.1	100.0, under 105.0	3.8	10.5	4.3	.8
42.5, under 45.0	1.4	(1)	.4	2.2	105.0, under 110.0	2.2	7.7	1.1	.2
45.0, under 47.5	9.9	(1)	2.0	15.3	110.0, under 115.0	2.0	6.4	1.7	.2
47.5, under 50.0	1.2	(1)	.7	1.7	115.0, under 120.0	2.0	7.0	.9	.1
50.0, under 52.5	23.9	0.1	8.9	36.6	120.0, under 125.0	1.2	4.2	.8	.1
52.5, under 55.0	1.1	(1)	1.3	1.4	125.0, under 130.0	1.7	5.4	1.1	.2
55.0, under 57.5	4.0	(1)	6.0	5.3	130.0, under 135.0	.8	2.6	.5	.1
57.5, under 60.0	.8	(1)	2.7	.8	135.0, under 140.0	.6	2.2	.4	(1)
60.0, under 62.5	4.8	.1	15.4	4.9	140.0, under 145.0	.5	1.8	.4	(1)
62.5, under 65.0	1.8	(1)	5.8	1.9	145.0, under 150.0	.5	1.5	.5	(1)
65.0, under 67.5	2.0	.3	8.1	1.7	150.0, under 160.0	1.2	4.1	.5	(1)
67.5, under 70.0	.6	.1	2.6	.4	160.0, under 170.0	.6	2.0	.3	(1)
70.0, under 72.5	1.5	.3	6.9	1.1	170.0, under 180.0	.5	1.8	.2	(1)
72.5, under 75.0	.4	.2	1.6	.3	180.0, under 190.0	.4	1.6	.2	(1)
75.0, under 77.5	2.1	.7	6.7	1.9	190.0, under 200.0	.3	1.2	.1	(1)
77.5, under 80.0	.4	.3	1.4	.3	200.0 cents and over	1.3	4.8	.2	(1)
80.0, under 82.5	1.1	.9	3.3	.8					
82.5, under 85.0	.9	2.4	1.0	.3	Total	100.0	100.0	100.0	100.0
85.0, under 87.5	1.2	2.7	2.3	.4					
87.5, under 90.0	1.5	3.2	3.6	.4	Number of workers	331,716	87,135	36,914	207,667
90.0, under 92.5	2.6	8.2	2.0	.4	Average hourly earnings	\$0.72	\$1.18	\$0.73	\$0.82
92.5, under 95.0	1.6	5.3	.8	.2					
95.0, under 97.5	1.9	6.3	1.4	.2					

¹ Less than a tenth of 1 percent.

Although the effects of the Board's revised order are not reflected in the figures presented in this study, which are based on an earlier period, it is of interest to note the proportion of workers whose straight-time average hourly earnings were less than 50 cents and 55 cents in August 1944. Thus, straight-time average hourly earnings were under 50 cents for 25 percent of all workers in the basic lumber industry, more than a third (39 percent) of the workers in the South, and 4 percent in the North. Less than 1 percent of the workers in the West were paid less than 50 cents an hour. Half of all lumber workers covered were paid under 55 cents an hour, the largest group being in the South, where 77 percent of the workers received less than 55 cents; the proportions in the North and West were 15 and 1 percent, respectively. The majority of western workers earned over \$1.00 an hour, while in the North the greatest concentration was between 60 and 80 cents and in the South under 55 cents.

The various factors that enter into the determination of regional wage levels cannot be discussed in detail in this report. It is possible, however, to indicate in summary fashion the major elements that influence competition for labor in each region and differentiate one region from another.

In the West, because the lumber stand is concentrated in a smaller area than in the other regions, lumber establishments are in closer proximity to each other. Workers move with greater facility among companies, and such mobility, in a tight labor market, intensifies competition and places an upward pressure on wages. In addition to active intra-industry bidding for workers, Western lumber companies have faced brisk labor competition from high-wage manufacturing industries on the West Coast as well as from agriculture. During the war both intra-industry and inter-industry competition for workers in the West probably increased to a greater extent than in other regions because of the sizable growth of western lumber production and the tremendous development of West Coast manufacturing industries. It is also important to note that unionization has advanced considerably farther in the West than in the North and South. At the time of this survey more than four-fifths of the workers in the Far West were organized, as compared with only one-fourth of the workers in the North and only 8 percent of those in the South.

Under peacetime conditions, labor for the southern lumber industry is drawn primarily from agriculture. The low farm wages in the South and the fact that the lumber industry is not, as in the West, the prime source of workers' income but in most instances merely a supplement to farm income, have acted to hold down the level of lumber wages in that region. The scarcity of workers for the lumber industry in the South has been felt keenly during the war, for this region also experienced an abnormal increase in industrial activity. Although many southern lumber companies increased wage rates, others were forced to curtail operations because of their inability to retain their labor supply in the face of competition from higher-wage industries.

It is also important to note that, in the South, Negroes form a larger proportion of the labor force than in either the West or North.

Mexicans, Chinese, Filipinos and Japanese, who are often paid less than the prevailing rate, are employed in the West, but to a much smaller extent than are Negroes in the South. Labor-market conditions in the northern segment of the industry resemble those in the South in some respects, although competition for labor from manufacturing industries has been somewhat more important. The North, of course, has used Negro labor to a less degree than the South.

The high level of wages in the West has rested upon the superiority of the basic timber resources there and the high productivity of labor. In 1938 it was estimated that 63 percent of the country's old-growth saw timber was in the West, 25 percent in the South, and 12 percent in the North.⁷ Such timber is the most important, is in greatest demand, and is preferred in the manufacture of most timber products. In 1944, 45 percent of the total lumber production in the country was produced in the West, 39 percent in the South, and 16 percent in the North.⁸

Because of the great concentration of the timber stand and the large size of the trees, western operations are larger in scale and more highly mechanized than operations in the North and South and, as a result, the productivity of western labor is far greater than in other regions. A study made by the Bureau in 1937 showed that 32.2 man-hours were required to produce 1,000 board feet of yard lumber in the Southern Pine region and 36.0 man-hours in the Southern Hardwood region. In the Western Pine region the corresponding figure was 25.3 man-hours, and in the western Douglas Fir region only 22.1 man-hours.⁹

BRANCH VARIATIONS IN HOURLY EARNINGS

Average straight-time hourly earnings in August 1944 ranged from \$1.45 in shingle mills to 52 cents in veneer mills. As would be expected, the branches also showed marked variations with respect to the distribution of workers according to hourly earnings (table 3). Although in no branch did more than a few workers receive less than 40 cents (the statutory minimum wage), the proportions of workers whose straight-time hourly earnings were under 50 cents, under 55 cents, and over \$1.00 were substantially different, as the following summary based on table 3 shows:

	Percent with straight-time hourly earnings of—		
	Under \$0.50	Under \$0.55	Over \$1.00
Logging camps.....	19.3	47.2	25.9
Sawmills.....	28.6	52.3	14.4
Veneer mills.....	49.5	68.8	1.5
Shingle mills.....	---	---	93.9
Cooperage-stock mills.....	43.3	70.5	.6
Plywood mills.....	26.8	37.7	18.8

In the shingle mills nearly half of the workers (45.5 percent) received average hourly earnings of \$1.50 or more.

⁷ 1940 Yearbook of Agriculture (p. 463).

⁸ Data are from Forest Service and War Production Board. In 1944, 32,554 millions of board feet of lumber were produced in the United States.

⁹ See Labor Requirements in Lumber Production by B. H. Topkis, in Monthly Labor Review, May 1937. In the computation of man-hours, four operations were considered: Logging, manufacturing, selling and administration, and transportation. The northern lumber region was not covered in that survey.

TABLE 3.—Percentage Distribution of Workers in Basic Lumber Industry, by Straight-Time Average Hourly Earnings and Branch of Industry, August 1944

Average hourly earnings	Total all branches	Logging camps	Saw-mills	Veneer mills ¹	Shingle mills ²	Cooper-age-stock mills ¹	Plywood mills
Under 40.0 cents.....	0.4	0.3	0.4	—	—	0.1	0.4
40.0 and under 42.5 cents.....	12.1	9.3	14.2	22.1	—	16.3	10.0
42.5 and under 45.0 cents.....	1.4	.7	1.8	5.8	—	1.4	3.3
45.0 and under 47.5 cents.....	9.9	8.1	10.9	19.7	—	19.9	11.0
47.5 and under 50.0 cents.....	1.2	.9	1.3	1.9	—	5.6	2.1
50.0 and under 52.5 cents.....	23.9	26.9	22.7	18.0	—	25.6	8.8
52.5 and under 55.0 cents.....	1.1	1.0	1.0	1.3	—	1.6	2.1
55.0 and under 57.5 cents.....	4.0	4.4	3.6	6.6	—	4.1	4.1
57.5 and under 60.0 cents.....	.8	1.0	.6	1.8	—	1.1	1.3
60.0 and under 62.5 cents.....	4.8	5.5	4.5	5.8	—	6.2	3.0
62.5 and under 65.0 cents.....	1.8	2.4	1.3	2.0	—	4.0	1.6
65.0 and under 67.5 cents.....	2.0	1.9	2.0	4.3	—	3.3	2.9
67.5 and under 70.0 cents.....	.6	.6	.6	1.8	—	1.1	1.0
70.0 and under 72.5 cents.....	1.5	1.4	1.5	2.1	—	1.8	2.2
72.5 and under 75.0 cents.....	.4	.5	.3	1.0	—	.5	.6
75.0 and under 77.5 cents.....	2.1	2.1	2.2	1.5	—	1.5	1.5
77.5 and under 80.0 cents.....	.4	.4	.4	.3	—	.7	.9
80.0 and under 82.5 cents.....	1.1	1.0	1.2	.7	—	1.0	.7
82.5 and under 85.0 cents.....	.9	.6	1.2	.1	—	1.2	.8
85.0 and under 87.5 cents.....	1.2	.6	1.7	.5	—	.8	.9
87.5 and under 90.0 cents.....	1.5	1.3	1.8	.3	—	.1	.4
90.0 and under 92.5 cents.....	2.6	1.2	3.6	.6	—	.5	8.1
92.5 and under 95.0 cents.....	1.6	.7	2.3	.1	—	.2	4.6
95.0 and under 97.5 cents.....	1.9	.5	3.0	.2	2.4	.6	4.9
97.5 and under 100.0 cents.....	1.2	.8	1.5	—	3.7	.2	3.7
100.0 and under 105.0 cents.....	3.8	2.6	4.8	.7	7.1	.4	3.8
105.0 and under 110.0 cents.....	2.2	2.5	2.0	.1	6.2	.1	2.6
110.0 and under 115.0 cents.....	2.0	2.4	1.7	.4	3.5	(³)	3.5
115.0 and under 120.0 cents.....	2.0	2.6	1.4	(³)	2.7	.1	4.6
120.0 and under 125.0 cents.....	1.2	1.7	.8	.1	4.1	—	2.0
125.0 and under 130.0 cents.....	1.7	2.5	.9	.2	3.9	(³)	2.3
130.0 and under 135.0 cents.....	.8	1.2	.4	(³)	3.9	—	.3
135.0 and under 140.0 cents.....	.6	1.0	.3	(³)	5.0	—	(³)
140.0 and under 145.0 cents.....	.5	.9	.3	—	5.4	—	(³)
145.0 and under 150.0 cents.....	.5	.8	.2	—	6.6	—	(³)
150.0 and under 160.0 cents.....	1.2	2.0	.5	—	12.9	—	(³)
160.0 and under 170.0 cents.....	.6	.9	.3	—	10.6	—	—
170.0 and under 180.0 cents.....	.5	.9	.2	—	6.7	—	—
180.0 and under 190.0 cents.....	.4	.8	.1	—	6.6	—	—
190.0 and under 200.0 cents.....	.3	.6	.1	—	4.5	—	—
200.0 cents and over.....	1.3	2.5	.4	—	4.2	—	—
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers.....	331,716	140,991	170,430	4,727	1,678	3,669	10,221
Average hourly earnings.....	\$0.72	\$0.78	\$0.67	\$0.52	\$1.45	\$0.53	\$0.73

¹ Does not include data for veneer and cooperage stock mills in the West, as these two branches of the industry are relatively unimportant in that area.

² Based only on data for shingle mills in the Douglas Fir region of the Far West, which produced approximately 95 percent of all shingles manufactured in the United States.

³ Less than a tenth of 1 percent.

Since the Bureau's last study of the lumber industry, considerable change has taken place not only in the level of wages for each branch as a whole, but also with respect to the distribution of workers within each branch. The percentage of workers in the fall of 1939 and in August 1944, with average straight-time hourly earnings at the two extremes of the wage scale, is shown in table 4.

It is apparent that the shift at the low end of the wage scale has been considerably greater than at the high end, but in both instances the change has been substantial. It is especially notable that whereas

nearly three-fourths of all workers in veneer mills and cooperage-stock mills received under 40 cents an hour in the fall of 1939,¹⁰ no workers in veneer mills and only 0.1 percent of cooperage-stock workers were in that class in August 1944. In shingle mills, where wages were always much above those in other branches, the shift of workers to the higher brackets was also great. Slightly more than a third of the workers in this branch earned more than \$1.00 an hour in the fall of 1939; almost all shingle workers were found in this class in August 1944. Only 2 percent of shingle-mill workers had hourly earnings of over \$1.50 in the earlier period; in August 1944, the corresponding figure was 46 percent.

TABLE 4.—*Percentage Distribution of Workers in Basic Lumber Industry with Specified Straight-Time Average Hourly Earnings, 1939 and 1944*

Branch of industry	Percent of workers with straight-time hourly earnings—			
	Under \$0.40		Over \$1.00	
	Fall of 1939	August 1944	Fall of 1939	August 1944
Logging camps.....	36.6	0.3	9.1	25.9
Sawmills.....	53.0	.4	2.4	14.4
Veneer mills.....	72.0	.....	.3	1.5
Shingle mills.....	.1	.....	37.6	93.9
Cooperage-stock mills.....	76.6	.1	.....	.6
Plywood mills.....	50.0	.4	1.5	18.8

For three branches of the basic lumber industry the physical location influences the level of wages to a greater extent than for other branches, because of the concentration of production within certain areas. Veneer and cooperage-stock mills, as has been noted, operate primarily in the North and South and consequently wages in these branches are not affected by the higher wage levels prevailing in the West. On the other hand, almost 95 percent of all shingles are produced in the West, the highest wage area. Sawmills, logging camps, and plywood mills are found in all regions, and their general wage levels are affected by both the higher wages of the West and the lower wages of the North and South.

The relative importance of skilled labor in the labor force of each branch also operates to differentiate wage levels. Although the simplest occupational structure is found in shingle mills, this branch employs a higher proportion of skilled workers than any of the other branches. Logging camps and sawmills have a greater subdivision of labor than shingle mills, but they also employ a large number of skilled workers. The use of skilled workers is smaller in relation to the size of the labor force in veneer, plywood, and cooperage-stock mills. Veneer and plywood mills are the only branches that employ women in any considerable number, and veneer mills, because of their concentration in the South, also employ relatively more Negroes than do the other branches.

In a highly hazardous industry it is reasonable to assume that interbranch differences in accident risks play some part in differentiating

¹⁰ Under the Fair Labor Standards Act the minimum wage for the industry in the fall of 1939 was 30 cents an hour.

wage levels. A study made by the Bureau in 1940 of accidents in three branches of the lumber industry showed that the average number of disabling injuries per million hours worked was 102.02 in logging camps, 46.53 in sawmills and 34.94 in planing mills. The average number of days lost per 1,000 hours worked was 15.40 in logging camps, 4.99 in sawmills, and 2.84 in planing mills.¹¹

UNION AND NONUNION WAGES

Unionization in the basic lumber industry is largely confined to western operations. For this reason the analysis of wages of union and nonunion workers was restricted to that region. In August 1944, according to the results of this survey, the differences in straight-time hourly earnings between union and nonunion workers in the West were so small that they cannot be considered significant. In logging camps union wages averaged \$1.38 per hour and nonunion wages \$1.34 an hour. Straight-time average hourly earnings in union and nonunion sawmills were identical—\$1.04 an hour.

In both branches the distribution of union and nonunion workers according to hourly earnings showed only minor differences. For example, in union logging camps 29 percent of the workers received \$1.50 and more an hour; in nonunion camps the corresponding proportion was 27 percent. In sawmills, a slightly larger proportion (55 percent) of union workers than of nonunion workers (49 percent) received less than \$1.00 an hour.

INFLUENCE OF METHOD OF WAGE PAYMENT ON HOURLY EARNINGS

At the time of the Bureau's survey, only 10 percent of the workers in the basic lumber industry were employed on a piece-rate basis; most workers received straight-time rates. From table 5 it will be observed that 16 percent of the workers in the West were paid on an incentive basis, 20.7 percent in the North, and only 5.8 percent in the South. Among the six branches of the industry, only 2.1 percent and 3.1 percent of the workers in veneer mills and sawmills, respectively, received incentive pay, but 11.9 percent in cooperage-stock mills, 15 percent in plywood mills, 17.9 percent in logging camps, and 58.4 percent in shingle mills worked on an incentive basis.

The difference in straight-time average hourly earnings between time and incentive workers was found to be considerable, except in plywood mills. In that branch, because incentive pay was common only in the North and South where the wage level was lower than in the West, the earnings of incentive workers were below the earnings of time workers. In absolute terms, the spread in hourly earnings between time and incentive workers in logging camps was 66 cents in the West, 33 cents in the North, and 21 cents in the South. For sawmills the corresponding difference was 58 cents in the West, and 12 and 14 cents in the North and South, respectively. Incentive workers in Northern cooperage-stock mills earned 38 cents more per hour than time workers; in the South the difference amounted to 18 cents. It is important to note that the statistics for time and incentive workers in each branch and region were not limited to identical occu-

¹¹ Causes and Prevention of Accidents in Logging and Lumber Mills, 1940, by Max D. Kossoris and Frank S. McElroy, in *Monthly Labor Review*, December 1941.

pations. Consequently, differences in hourly earnings may reflect differences in the proportion of skilled workers as well as differences in the organization and intensity of work.

TABLE 5.—*Straight-Time Average Hourly Earnings in Basic Lumber Industry, by Region, Branch, and Method of Wage Payment, August 1944*

Region and branch	Straight-time average hourly earnings			Percent of covered workers paid on incentive basis	Region and branch	Straight-time average hourly earnings			Percent of covered workers paid on incentive basis
	All workers	Time	Incentive			All workers	Time	Incentive	
All branches:					Plywood mills:				
United States.....	\$0.72	\$0.66	\$1.20	10.1	United States.....	\$0.73	\$0.74	\$0.67	15.0
West.....	1.18	1.07	1.77	16.0	West.....	1.03	1.03		
North.....	.73	.68	.95	20.7	North.....	.62	.57	.68	47.2
South.....	.52	.51	.71	5.8	South.....	.49	.49	.56	4.1
Logging camps:					Shingle mills:				
United States.....	.78	.68	1.23	17.9	Douglas Fir district.....	1.45	1.23	1.59	58.4
West.....	1.37	1.19	1.85	27.5	Cooperage-stock mills:				
North.....	.81	.70	1.03	30.5	United States.....	.53	.51	.67	11.9
South.....	.53	.51	.72	10.8	North.....	.59	.56	.94	7.4
Sawmills:					South.....	.55	.50	.68	12.3
United States.....	.67	.65	1.21	3.1	Veneer mills:				
West.....	1.04	1.00	1.58	6.8	United States.....	.52	.52	.61	2.1
North.....	.69	.68	.80	2.0	North.....	.62	.62	.59	7.6
South.....	.51	.51	.65	1.7	South.....	.49	.48	.74	.4

HOURLY EARNINGS BY OCCUPATION

The wage data collected in this survey are based on key occupations representative of the wide range of skills and wages in the basic lumber industry. A forthcoming bulletin will contain detailed tables showing average hourly earnings for all of these key occupations by branch and region. The most important of these occupations were also surveyed in the Bureau's study of the industry in the fall of 1939.¹² The following discussion is limited to a comparison of hourly earnings for this smaller group in the fall of 1939 and in August 1944. The statistics, classified according to branch and region, are presented in table 6. It may be pointed out that skilled, semiskilled, and unskilled occupations are represented in this smaller sample. Because incentive pay was received by a larger number of workers in August 1944 than in the fall of 1939, the comparison is limited to those occupations in which straight-time pay was common in both periods.

Perhaps the most interesting observation to be drawn from these figures concerns the relative increase in earnings of the more-skilled and the less-skilled occupations between the fall of 1939 and August 1944. In terms of absolute gains, the more-skilled occupations generally appear to have enjoyed little advantage over the less-skilled workers. On a percentage basis, the wage increases in the skilled occupations have accordingly been less. This was observed in western logging camps where earnings of such skilled occupations as head loaders and engineers in the mechanical loading crew and cat drivers increased 38 cents, as against gains of 34 cents and 36 cents respectively for the less-skilled groups—cat-side choker setters and second loaders in the mechanical loading crew. Similarly in the North, the earnings of skilled cat drivers rose 38 cents and for wood scalers and engineers,

¹² The occupational wage data obtained in the earlier study, however, have not previously been published.

21 and 22 cents respectively. Less-skilled jobs such as hand loaders, teamsters, and cat-side choker setters had gains of 34 cents, 35 cents, and 31 cents respectively. In the South the increases for the more-skilled jobs ranged from 7 cents for wood scalers to 22 cents for hauling truck drivers. The smallest increase for southern workers in the less-skilled jobs was 16 cents for second loaders of the mechanical loading crew.

TABLE 6.—*Straight-Time Average Hourly Earnings of Workers in Selected Occupations in Basic Lumber Industry, by Branch and Region, Fall of 1939 and August 1944*

Occupation and branch	United States		West		North		South	
	August 1944	Fall of 1939	August 1944	Fall of 1939	August 1944	Fall of 1939	August 1944	Fall of 1939
Total, 70 occupations.....	\$0.70	\$0.51	\$1.21	\$0.78	\$0.74	\$0.40	\$0.51	\$0.34
<i>Logging camps</i>								
Total, 10 occupations.....	.75	.60	1.40	.84	.83	.38	.52	.34
Cat drivers (tractor).....	.79	.69	1.29	.91	.80	.42	.56	.36
Choker setters, cat side.....	.76	.57	1.05	.71	.68	.37	.47	.31
Engineer, mechanical loading.....	1.05	.75	1.29	.91	.70	.48	.55	.45
Fallers and buckers, hand.....	.81	.63	1.69	.87	.92	.38	.53	.34
Head loaders, mechanical loading.....	1.04	.82	1.34	.96	.76	.46	.51	.40
Loaders, hand.....	.52	.30	(1)	(1)	.64	.30	.50	.30
Scalers, woods.....	.92	.68	1.17	.84	.74	.53	.47	.40
Second loaders, mechanical loading.....	.86	.54	1.12	.76	.67	.44	.48	.32
Teamsters, skidding.....	.52	.41	(1)	.85	.69	.34	.49	.30
Truck drivers, hauling.....	.66	.47	1.11	.71	.67	.37	.53	.31
<i>Sawmills</i>								
Total, 20 occupations.....	.66	.47	1.07	.70	.69	.41	.51	.33
Car loaders.....	.66	.38	1.15	.67	.65	.38	.46	.30
Clean-up men.....	.62	.43	.88	.59	.62	.37	.45	.30
Deckmen, including drag-saw men.....	.56	.35	.96	.58	.67	.36	.48	.29
Doggers, head rig.....	.59	.40	.96	.61	.67	.39	.49	.30
Edgermen.....	.64	.51	1.12	.80	.70	.43	.51	.34
Edger off-bearers.....	.53	.40	.90	.58	.62	.35	.47	.29
Graders, finish chain.....	.80	.62	1.10	.80	.71	.55	.58	.48
Graders or markers, green chain.....	.81	.57	1.08	.73	.76	.48	.51	.39
Off-bearers, head rig.....	.55	.39	.96	.61	.66	.35	.46	.29
Pilers, yard, including timber handlers.....	.60	.43	1.38	.81	.64	.39	.48	.31
Pondmen, including slipmen.....	.75	.47	.96	.65	.62	.35	.46	.31
Pullers, dry chain.....	.71	.49	1.02	.68	.59	.39	.46	.31
Pullers, green chain.....	.79	.50	1.02	.65	.62	.38	.46	.30
Resaw off-bearers, head mill.....	.48	.41	(1)	.60	.64	.38	.46	.31
Resawyers, head mill.....	.78	.59	1.08	.71	.73	.47	.51	.36
Sawyers, head rig.....	.92	.77	1.47	1.18	.93	.64	.80	.62
Setters, head rig.....	.69	.50	1.08	.75	.69	.43	.54	.35
Tallymen.....	.81	.53	1.05	.71	.79	.40	.62	.33
Tractor and truck drivers.....	.57	.47	1.01	.68	.68	.40	.48	.30
Trimmermen, head mill.....	.69	.44	1.02	.68	.66	.38	.49	.31
<i>Veneer mills</i>								
Total, 8 occupations.....	.51	.36	(2)	(2)	.60	.41	.48	.34
Car loaders.....	.47	.35	(2)	(2)	.58	.40	.46	.33
Clean-up men, mill service.....	.46	.31	(2)	(2)	.56	(1)	.44	.31
Clipper-machine operators.....	.58	.39	(2)	(2)	.65	.42	.54	.38
Truckers, hand.....	.47	.31	(2)	(2)	.62	(1)	.45	.31
Veneer drier feeders and off-bearers.....	.47	.32	(2)	(2)	.53	.38	.44	.32
Veneer graders.....	.51	.39	(2)	(2)	.63	.46	.48	.37
Veneer lathe operators.....	.76	.54	(2)	(2)	.86	.57	.72	.53
Veneer lathe operators' helpers.....	.49	.33	(2)	(2)	.57	.37	.47	.32
<i>Shingle mills</i>								
Total, 8 occupations.....	1.45	.96	1.45	.96	(2)	(2)	(2)	(2)
Block pilers.....	1.07	.73	1.07	.73	(2)	(2)	(2)	(2)
Cut-off operators.....	1.35	.87	1.35	.87	(2)	(2)	(2)	(2)
Deckmen, log.....	1.17	.75	1.17	.75	(2)	(2)	(2)	(2)
Loaders, car and truck.....	1.02	.71	1.02	.71	(2)	(2)	(2)	(2)
Shingle packers.....	1.45	.92	1.45	.92	(2)	(2)	(2)	(2)
Shingle sawyers.....	1.71	1.17	1.71	1.17	(2)	(2)	(2)	(2)
Splitter men.....	1.11	.83	1.11	.83	(2)	(2)	(2)	(2)
Tallymen.....	1.08	.78	1.08	.78	(2)	(2)	(2)	(2)

TABLE 6.—*Straight-time Average Hourly Earnings of Workers in Selected Occupations in Basic Lumber Industry, by Branch and Region, Fall of 1939 and August 1944—Con.*

Occupation and branch	United States		West		North		South	
	August 1944	Fall of 1939	August 1944	Fall of 1939	August 1944	Fall of 1939	August 1944	Fall of 1939
<i>Cooperage-stock mills</i>								
Total, 12 occupations.....	\$0.54	\$0.39	(2)	(2)	\$0.60	\$0.43	\$0.53	\$3.39
Bolters.....	.51	.32	(2)	(2)	.88	(1)	.48	.32
Bundlers, staves and headings.....	.49	.32	(2)	(2)	.51	.37	.49	.31
Car loaders.....	.45	.30	(2)	(2)	(1)	(1)	.45	.30
Clean-up men, mill service.....	.45	.32	(2)	(2)	.51	(1)	.44	.32
Cut-off saw operators, log.....	.49	.33	(2)	(2)	.56	(1)	.49	.33
Deckmen, log.....	.47	.30	(2)	(2)	.55	(1)	.46	.30
Heading matchers.....	.63	.38	(2)	(2)	.56	(1)	.63	.38
Heading-saw operators.....	.63	.44	(2)	(2)	.68	(1)	.63	.44
Heading turners.....	.69	.47	(2)	(2)	.54	(1)	.71	.47
Jointer operators.....	.61	.46	(2)	(2)	.60	.43	.61	.46
Stave-planer operators.....	.49	.37	(2)	(2)	.52	(1)	.49	.37
Stave-saw operators.....	.63	.46	(2)	(2)	.61	.47	.64	.45
<i>Plywood mills</i>								
Total, 12 occupations.....	.74	.47	\$1.04	\$0.71	.61	.40	.49	.32
Car loaders.....	.70	.46	.95	.65	.61	.35	.46	.31
Clipper-machine operators.....	.71	.44	1.11	.76	.57	.41	.57	.33
Glue-spreader catchers.....	.87	.60	1.20	.98	.61	.40	.47	.32
Glue-spreader feeders.....	.76	.50	1.10	.78	.59	.38	.48	.32
Patchers, plywood and/or panels.....	1.06	.53	1.16	.64	.62	.40	.60	(1)
Pressmen.....	.81	.51	1.10	.83	.64	.44	.55	.32
Truckers, hand.....	.57	.44	.97	.69	.56	.35	.45	.32
Veneer-drier feeders and off-bearers.....	.68	.45	.92	.64	.60	.37	.44	.31
Veneer graders.....	.77	.50	.99	.72	.59	.43	.56	.33
Veneer lathe operators.....	.89	.66	1.25	.97	.76	.57	.72	.53
Veneer lathe operators' helpers.....	.62	.37	.99	.69	.61	.37	.46	.31
Veneer matchers.....	.58	.48	.99	.70	.63	.43	.47	.32

¹ No information obtained for workers in this occupation, which is not commonly found in this broad region.

² No data obtained for veneer and cooperage-stock mills in the West, as these two branches of the industry are relatively unimportant in that area.

³ No data obtained for shingle mills in the North or South as that branch of the industry is relatively unimportant in these two areas.

Of the 20 sawmill occupations listed in table 6, edgermen, finish chain graders, green chain graders, head sawyers, resawyers, setters, and trimmermen are the more-skilled jobs. The increases in hourly earnings between the fall of 1939 and August 1944 for this group ranged from 29 to 37 cents in the West, from 16 to 39 cents in the North, and from 10 to 18 cents in the South. In contrast, the gains for the less-skilled occupations varied from 29 to 38 cents in the West, from 25 to 39 cents in the North and from 15 to 29 cents in the South.

In both the North and the South, lathe operators in veneer mills, the outstanding skilled occupation, had the largest absolute increase (22 cents), but veneer graders, another skilled group, had the smallest (12 cents). Among the less-skilled jobs, the gains varied from 23 cents for clipper-machine operators to 12 cents for workers operating veneer driers.

In shingle mills the block pilers, cut-off operators, log deckmen, car and truck loaders, and tallymen are representative of the less-skilled occupations. For these jobs the absolute gains varied from 30 cents to 48 cents. Splittermen, the only relatively skilled occupation for which wage data are available for both periods, showed an increase of only 28 cents.

Adequate comparative figures for occupations in cooperage-stock mills are available only for the South. The absolute gains for the

less-skilled jobs ranged from 12 to 25 cents and for the more-skilled, from 12 to 24 cents.

In plywood mills the earnings of skilled workers rose by 22 to 28 cents in the West, by 16 to 21 cents in the North, and by 15 to 23 cents in the South. As in the case of several other branches of the industry the range of absolute increases for the less-skilled jobs was greater—from 28 to 52 cents in the West, from 16 to 26 cents in the North, and from 13 to 24 cents in the South.

Wage-payment Practices

It has already been noted that in the basic lumber industry work is generally performed on a time basis. In shingle mills more than half of the workers were paid piece rates and production bonuses, but in the other five branches less than 20 percent of the workers were paid on an incentive basis, and in sawmills and veneer mills the proportion was under 5 percent.

In the West the most common workweek at the time of the survey was 8 hours per day and 48 hours per week; nearly three-fourths of the logging camps, two-thirds of the sawmills, and all but three of the plywood mills were on this schedule. In the North less than two-fifths of the operations worked a 48-hour week, 8-hour day; one-fourth were on a 40-hour week, 8-hour day; and about one-fourth had a workweek schedule of 50 hours or more with daily hours varying from 8 to 10. The 50-hour schedule in the North was confined primarily to logging operations and sawmills; in veneer, plywood, and cooperage-stock mills the most common workweek was 48 hours, with an 8-hour day.

The workweek was in general shorter in the South than in the other two regions, with more than half of the operations on a 40-hour week and 8-hour day. More than half of all southern logging camps and sawmills and nearly a third of the cooperage-stock mills were on this schedule. In plywood mills a 48-hour workweek with an 8-hour day was most common; in veneer mills approximately one-fifth of the operations had a 40-hour week and 8-hour day, the same proportion had a 45-hour week and 9-hour day, while one-fourth worked on a schedule of 48 hours a week and 8 hours a day.

Overtime after 40 hours a week was paid for at the rate of time and a half in three-fourths of the operations in the basic lumber industry; in nearly a fourth of the operations, the premium rate was effective after 8 hours a day. This practice appears to be most common in the West; in shingle mills, however, under the terms of an industry-wide agreement, overtime is paid for at the rate of time and a half after 36 hours a week and 6 hours a day.

Basic lumber operations, and especially logging, are typically single-shift operations. Less than 3 percent of all sawmills operate more than one shift, and fully three-fourths of these multiple-shift operations are large western mills. Approximately two-fifths of the plywood mills operate more than one shift, while almost two-thirds of the shingle mills operate two 6-hour shifts. Comparatively few veneer and cooperage-stock plants operate more than one shift.

Shift-differential payments are most common in the West. More than two-thirds of the western sawmills working a second shift and virtually all of those working a third shift paid a shift differential.

The most common differential on both shifts was 3 cents an hour and the next most common was $3\frac{1}{2}$ cents an hour. Less than a third of the northern sawmills operating more than one shift paid a differential which varied from 2.5 cents to 5 cents an hour. Only one southern sawmill reported paying a shift differential, and that amounted to 5 cents for workers on the second shift. All western plywood plants operating more than one shift paid a shift differential which varied from 4 cents for work on the second shift to 7 cents for work on the third shift. Few southern plywood mills and few shingle mills, veneer mills, and cooperage-stock mills paid premium rates for work on the late shift.

In general, paid vacations are confined to the West where about half of the logging camps and sawmills, all of the plywood mills, and virtually all of the shingle mills granted their workers paid vacations. With the exception of veneer and plywood mills, in which two-fifths and three-fifths of the operations, respectively, granted paid vacations, only a small number of northern operations had such policies. Very few southern operations granted paid vacations.

The length of the paid vacation varied among regions and branches of the industry. In western logging camps and sawmills the most common paid-vacation period was 1 week after 1,400 hours of work per year, 4 days after 1,120 hours of work, and 3 days after 840 hours of work. A substantial number of operations (one-fifth of the logging camps, two-fifths of the sawmills, and more than two-thirds of the plywood mills) granted 1 week of paid vacation after 1 year of service. Shingle mills had a paid vacation of 1 week, but during the war period all workers elected to remain on the job and to accept instead a flat increase of 3 cents an hour. In both the North and the South the most usual paid vacation was 1 week after 1 year of service. A few operations in these regions granted 1 week for a shorter period of service, such as 1 week after 1,000 hours of work or 6 days of pay after 6 months of service, while others required a longer period of service such as 2 years of service for 1 week of paid vacation.

Six holidays were reported by 58 percent of western operations, 28 percent of northern, and 9 percent of southern operations. The rate of pay for holidays worked was generally time and a half.



Trend of Factory Earnings, 1939 to July 1945

THE published average earnings of factory workers are summarized in the accompanying table for selected months from January 1939 to July 1945.¹ The earnings shown in this table are on a gross basis (i. e., before deductions for social security, income and victory taxes, bond purchases, etc.).

Weekly earnings in all manufacturing averaged \$45.42 in July 1945—95.9 percent above the average in January 1939, 70.5 percent above January 1941, and 16.8 percent above October 1942.

¹ Compare Trends in Factory Wages, 1939-43, in Monthly Labor Review, November 1943 (pp. 869-884), especially table 4 (p. 879). For detailed data regarding weekly earnings, see Detailed Reports for Industrial and Business Employment, July 1945, table 6 (p. 825), in this issue.

Gross hourly earnings in all manufacturing averaged 103.3 cents in July 1945—63.4 percent above the average in January 1939, 51.2 percent above January 1941, and 15.7 percent above October 1942.

Straight-time average hourly earnings, as shown in columns 7 to 9, are estimated to exclude premium pay at time and a half for work in excess of 40 hours. The effect of extra pay for work on supplementary shifts and on holidays is included. For all manufacturing, the straight-time average in July 1945 was 96.9 cents per hour; this was 55.5 percent higher than in January 1939, 45.9 percent above January 1941, and 15.5 percent above October 1942.

The shift of workers from relatively low-wage to relatively high-wage industries since 1939 would have raised the average earnings of factory workers, even if no other influences had been present. The effects of such interindustry shifts have been eliminated from the averages shown in columns 10 to 12 of the table. If employment had been distributed between industries as it was in January 1939, the straight-time hourly earnings of factory workers would have averaged 90.6 cents in July 1945, or 45.4 percent above the corresponding average in January 1939, 39.8 percent above January 1941, and 15.9 percent above October 1942. Between June and July 1945 the increase in straight-time hourly earnings, after eliminating the influence of shifting employment, amounted to 0.1 percent. Even this latter series of averages exaggerates the rise in wage rates, because it includes the influence of interplant shifts of employment, merit increases for individual workers, and premium rates for work on extra shifts and on holidays.

Earnings of Factory Workers in Selected Months, 1939 to July 1945

Month and year	Average weekly earnings			Average hourly earnings			Estimated straight-time average hourly earnings ¹			Estimated straight-time average hourly earnings weighted by January 1939 employment ²		
	All manu- factur- ing	Dura- ble goods	Non- dura- ble goods	All manu- factur- ing	Dura- ble goods	Non- dura- ble goods	All manu- factur- ing	Dura- ble goods	Non- dura- ble goods	All manu- factur- ing	Dura- ble goods	Non- dura- ble goods
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1939: Jan.....	\$23.19	\$25.33	\$21.57	\$0.632	\$0.696	\$0.583	\$0.623	\$0.688	\$0.574	\$0.623	\$0.688	\$0.574
1940: Jan.....	24.56	27.39	22.01	.655	.717	.598	.644	.703	.589	.635	.697	.589
1941: Jan.....	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601	.648	.711	.600
1942: Jan.....	33.40	38.98	26.97	.801	.890	.688	.762	.835	.670	.729	.810	.667
July.....	36.43	42.51	28.94	.856	.949	.725	.809	.885	.701	.759	.846	.694
Oct.....	38.89	45.31	30.66	.893	.990	.751	.839	.919	.723	.782	.869	.716
1943: Jan.....	40.62	46.68	32.10	.919	1.017	.768	.859	.941	.733	.794	.886	.724
Apr.....	42.48	48.67	33.58	.944	1.040	.790	.878	.959	.751	.808	.897	.741
July.....	42.76	48.76	34.01	.963	1.060	.806	.899	.981	.766	.823	.919	.750
Oct.....	44.86	51.26	35.18	.988	1.086	.824	.916	.997	.781	.836	.929	.765
Dec.....	44.58	50.50	35.61	.995	1.093	.832	.927	1.011	.788	.846	.942	.773
1944: Jan.....	45.29	51.21	36.03	1.002	1.099	.838	.931	1.013	.793	.850	.945	.778
Apr.....	45.55	51.67	36.16	1.013	1.110	.850	.942	1.023	.806	.862	.955	.792
July.....	45.43	51.07	37.05	1.018	1.116	.862	.950	1.035	.815	.874	.973	.799
Oct.....	46.94	53.18	37.97	1.031	1.129	.878	.956	1.038	.829	.881	.969	.815
Dec.....	47.44	53.68	38.39	1.040	1.140	.883	.963	1.046	.832	.886	.975	.818
1945: Jan.....	47.50	53.54	38.66	1.046	1.144	.891	.970	1.053	.840	.894	.984	.825
Apr.....	47.12	52.90	38.80	1.044	1.138	.899	.971	1.050	.850	.899	.986	.834
May.....	46.02	51.56	38.18	1.042	1.134	.903	.976	1.055	.858	.907	.993	.842
June ³	46.34	51.78	38.93	1.038	1.131	.904	.970	1.049	.855	.905	.991	.840
July ³	45.42	50.60	38.59	1.033	1.127	.902	.969	1.052	.854	.906	.995	.840

¹ Average hourly earnings, excluding the effect of premium pay for overtime.

² Average hourly earnings, excluding premium pay for overtime, weighted by man-hours of employment in the major divisions of the manufacturing industry, for January 1939.

³ Preliminary.

Wages and Hours in the Needlework Industry in Puerto Rico, 1943¹

AN OFFICIAL study of the machine needlework industry was made in January 1944 by the Puerto Rican Department of Labor, through its Women's Work Section and Industrial Supervision Service, covering the last half of 1943. Shops in operation were found to number 161, employing a total of 6,393 persons—5,556 women and 837 men.

The needlework industry in Puerto Rico includes hand work and machine work. The former, consisting of home work, constitutes the greater portion of the industry, but only the machine work, done in shops, was investigated in this study. The Puerto Rican needlework industry may be considered a branch of that industry in the United States, and few plants in Puerto Rico function independently of those in continental United States.

The following statement shows the development of the industry from 1940 to 1943:

	1940	1943	Percent of increase
Number of shops.....	113	161	42
Number of workers.....	5, 326	6, 393	20

Most of the shops functioning in 1943 were in the urban area, and the greater number were small, with a capacity of from 5 to 50 workers. About 30 shops, however, had each a capacity of from 50 to 275 seamstresses. The small shops were principally used as centers of distribution for home work, to make samples of the work to be distributed, and to receive the finished work for shipment.

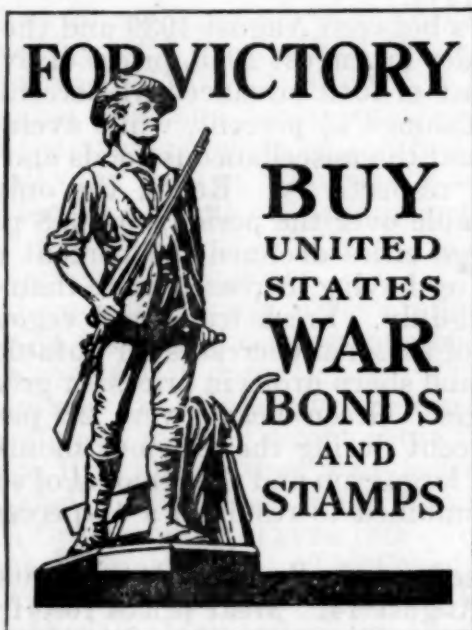
Mayagüez with 43 shops, Santurce with 25, and Bayamón with 21, had more than 55 percent of the total number of shops in Puerto Rico. However, 1 or more establishments were found in each of 24 towns, and 5 or more shops in each of 7 towns. Of the 468 salaried employees, 343 (73 percent) were women, and 125 (27 percent) were men. Of the 5,925 wage earners, 5,213 (88 percent) were women, and 712 (12 percent) were men.

The principal articles of manufacture were men's clothing, made by 46 shops; children's clothing, by 44 shops; women's clothing, by 40 shops; and handkerchiefs, by 35 shops.

Hours of work.—Weekly hours in the various plants ranged from a maximum of 48 to a minimum of 30, but the working day was in all cases 8 hours, except in one or two shops where it was less. In 109 shops (68 percent of the shops, employing 82 percent of all workers in the industry) the 40-hour week was worked. All the plants working more than 40 hours a week (10 working 44 hours, and 32 working 48 hours) manufactured goods for the local market only, and thus did not violate the Federal Wage and Hour Law, which applies only to goods for interstate trade.

¹ Estudio sobre la industria de la aguja durante el período comprendido entre los meses de Julio a Diciembre, 1943 (Puerto Rico, Departamento del Trabajo [San Juan], 1944). (Mimeographed.)

Workers' wages.—Of the 161 plants, 13 failed to report the minimum weekly wage and 44 failed to report the maximum weekly wage. Of those reporting the minimum wage, 53 (35.8 percent) paid a minimum wage between \$6 and \$7, and 45 (30.4 percent) a minimum between \$8 and \$9. At the extremes were 2 shops reporting minimum wages between \$3 and \$4 per week, and 7 reporting minima between \$9 and \$10. A much wider spread was shown in the 117 establishments reporting maximum weekly wages. Twenty-four plants (20.5 percent) reported maximum weekly wages between \$8 and \$9, 20 shops (17.1 percent) between \$10 and \$11, 16 (13.7 percent) between \$6 and \$7, and 16 between \$9 and \$10, thus accounting for 65 percent of all the reporting shops. At the extremes were 2 shops reporting maximum weekly wages between \$5 and \$6, and 6 shops reporting maxima between \$14 and \$15. The report states that in the period covered by the study, the needlework shops in the island were observing the provisions of the insular and Federal laws which regulate the wages of these workers.



Cost of Living and Retail Prices

Indexes of Consumers' Prices¹ in Large Cities, August 1945

LOWER prices for fresh fruits and vegetables accounted for a decline of 0.2 percent between July and August in the cost of goods in the family budget. Prices for other commodities and services during this last month of World War II increased slightly. The consumers' price index for moderate-income families in large cities for August 15, 1945, was 129.2 percent of the 1935-39 average and 2.2 percent above the level of August 1944.

During the 6 years between August 1939 and the announcement of the Japanese surrender in August 1945, prices of living essentials rose 31 percent. The cost of food advanced 51 percent, clothing 46 percent, and housefurnishings 45 percent, while average prices for fuel, electricity, and ice and the miscellaneous goods and services increased 14 and 24 percent, respectively. Rents, the only major group to remain relatively stable over the period, rose 3.8 percent.

Food costs in large cities declined 0.6 percent during the month ending August 15 after having increased more than 4 percent between mid-March and mid-July. Fresh fruits and vegetables prices fell 5 percent, as a result of seasonal decreases for potatoes, onions, carrots, and sweetpotatoes, and sharp drops in prices for green beans, cabbage, spinach, and oranges. Green beans were 22 percent lower, after having risen 37 percent during the previous month when OPA controls were lifted. A large crop and the removal of some special adjustments of ceilings combined to result in a 15-percent decrease in the price of onions.

Egg prices increased seasonally more than 5 cents per dozen during the month ending August 14. Meat prices rose fractionally as supplies of beef and prepared meats continued to show marked improvement. Beef steaks and roasts were again available in 60 percent of the independent stores as compared with 27 percent in mid-June; 70 percent of the grocers had no veal and pork. Rationing restrictions on canned fruits and vegetables were removed on August 16.

Average costs of clothing advanced 0.3 percent between July 15 and August 15 as stocks of apparel in retail stores—especially men's clothing—were reported to be lower than at any time since the entry

¹ This index, formerly called the cost-of-living index, represents average changes in retail prices of selected goods, rents, and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934-36. The items priced for the index constituted about 70 percent of the expenditures of city families whose incomes averaged \$1,524 in 1934-36.

The index does not show the full effect of such factors as changes in quality and the availability of goods. During the war the quality of civilian goods has been lowered. The Bureau has attempted to account for the disappearance of low-priced merchandise by pricing the most similar article available. The President's Committee on the Cost of Living has estimated that such factors, together with certain others not fully measured by the index, would add a maximum of 3 to 4 points to the average price rise shown for large cities between January 1941 and September 1944.

of the United States into the war. The price of women's winter cloth coats increased, reflecting the use of fur trim and of wool fabrics of better quality than during the previous season. Work clothing continued to advance as retailers were forced to replenish their stocks with higher price lines. Costs of rayon print dresses showed little movement as the season ended, but percale house dresses were higher in half of the cities surveyed. Supplies of inexpensive cotton dresses continued to improve in most cities, owing in part to increased stocks of merchandise price-marked by manufacturers in accordance with OPA regulations. Rayon knit undergarments declined in price over the month, and scattered increases were reported for rayon woven slips.

Average retail prices of housefurnishings and miscellaneous goods and services rose slightly (0.1 and 0.2 percent, respectively) between mid-July and mid-August. Wool blankets were generally higher and there were price advances in a few cities for living-room and bedroom furniture and cooking stoves, which offset scattered decreases in other cities. Some increases for laundry services and men's and women's haircuts were reported.

An increase of 3 to 20 cents per ton in the price of bituminous coal at the mine, allowed by OPA in over half of the Nation's producing districts, and an increase of 40 cents per ton in the price of coke to compensate for higher coal and labor costs, combined to cause a 0.2-percent rise in the average prices of the fuel, electricity, and ice group. Prices of all solid fuels in Minneapolis were raised an additional 9 cents per ton as a result of wage increases granted to local employees.

Rents were not surveyed in August.

The indexes in the accompanying tables are based on time-to-time changes in the cost of goods and services purchased by wage earners and lower-salaried workers in large cities. They do not indicate whether it costs more to live in one city than in another. The data relate to the 15th of each month, except those for January 1941, in tables 1 and 2. For that month they were estimated for January 1 (the date used in the "Little Steel" wage formula of the National War Labor Board), by assuming an even rate of change from December 15, 1940, to the next pricing date. The President's "hold-the-line" order was issued April 8, 1943. The peak of the rise which led to that order was reached in May, which is, therefore, used for this comparison.

Food prices are collected monthly in 56 cities during the first four days of the week which includes the Tuesday nearest the 15th of the month. Aggregate costs of foods in each city, weighted to represent food purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. In March 1943, the number of cities included in the food index was increased from 51 to 56, and the number of foods from 54 to 61. Prices of clothing, housefurnishings, and miscellaneous goods and services are obtained in 34 large cities in March, June, September, and December. In intervening months, prices are collected in 21 of the 34 cities for a shorter list of goods and services. Rents are surveyed semiannually in most of the 34 cities (in March and September, or in June and December). In computing the all-items indexes for individ-

ual cities and the rent index for the average of large cities because of the general stability of average rents at the present time, the indexes are held constant in cities not surveyed during the current quarter. Prices for fuel, electricity, and ice are collected monthly in 34 large cities.

TABLE 1.—Consumers' Prices for Moderate-Income Families in Large Cities as of August 1945 and Earlier Months

Group	August 1945	July 1945	August 1944	May 1943	May 1942	January 1941	August 1939
	This month	Last month	Last year	Hold-the-line order	Gen. Max. Price Reg.	"Little Steel" formula	Month before war in Europe
Indexes (1935-39=100)							
All items.....	129.2	129.4	126.4	125.1	116.0	100.8	98.6
Food.....	140.9	141.7	137.7	143.0	121.6	97.6	93.5
Clothing.....	146.2	145.7	139.4	127.9	126.2	101.2	100.3
Rent.....			108.2	108.0	109.9	105.0	104.3
Fuel, electricity, and ice.....	111.4	111.2	109.8	107.6	104.9	100.8	97.5
Gas and electricity.....	95.2	95.2	95.8	96.1	96.6	97.5	99.0
Other fuels and ice.....	127.2	126.7	123.3	118.7	112.9	104.0	96.3
Housefurnishings.....	145.5	145.3	139.3	125.1	122.2	100.2	100.6
Miscellaneous.....	124.4	124.2	122.3	115.3	110.9	101.8	100.4
Percent of change to August 1945							
All items.....		-0.2	+2.2	+3.3	+11.4	+28.2	+31.0
Food.....		-6	+2.3	-1.5	+15.9	+44.4	+50.7
Clothing.....		+3	+4.9	+14.3	+15.8	+44.5	+45.8
Rent ¹			+1	+3	-1.5	+3.1	+3.8
Fuel, electricity, and ice.....		+2	+1.5	+3.5	+6.2	+10.5	+14.3
Gas and electricity.....		0	-6	-9	-1.4	-2.4	-3.8
Other fuels and ice.....		+4	+3.2	+7.2	+12.7	+22.3	+32.1
Housefurnishings.....		+1	+4.5	+16.3	+19.1	+45.2	+44.6
Miscellaneous.....		+2	+1.7	+7.9	+12.2	+22.2	+23.9

¹ Percent of change to June 1945.

TABLE 2.—Percent of Change in Consumers' Price Index from Specified Dates to August 1945, By Cities

City	July 1945	Aug. 1944	May 1943	May 1942	Jan. 1941	Aug. 1939
	Last month	Last year	Hold-the-line order	Gen. Max. Price Reg.	"Little Steel" decision	Month before war in Europe
Average.....	-0.2	+2.2	+3.3	+11.4	+28.2	+31.0
Baltimore, Md.....	-4	+3.0	+3.3	+12.0	+31.5	+34.1
Birmingham, Ala.....	+2	+1.6	+6.4	+12.7	+31.7	+35.8
Boston, Mass.....	-2	+2.3	+2.7	+10.8	+26.7	+29.4
Buffalo, N. Y.....	+1	+2.4	+4	+7.3	+26.9	+31.3
Chicago, Ill.....	-4	+1.8	+2.7	+9.8	+26.4	+29.6
Cincinnati, Ohio.....	-2	+2.2	+4.4	+11.6	+29.8	+32.9
Cleveland, Ohio.....	0	+1.1	+3.2	+11.2	+29.5	+32.1
Denver, Colo.....	-1	+2.2	+2.6	+10.4	+27.6	+29.4
Detroit, Mich.....	+2	+2.9	+2.9	+10.3	+29.7	+33.0
Houston, Tex.....	-1	+2.1	+2.3	+9.6	+24.8	+26.4
Kansas City, Mo.....	+1	+2.9	+4.1	+11.7	+29.6	+29.3
Los Angeles, Calif.....	+2	+2.6	+4.1	+10.8	+27.7	+30.2
Minneapolis, Minn.....	-1	+1.7	+2.5	+7.7	+22.6	+25.2
New York, N. Y.....	-5	+2.2	+4.7	+14.7	+28.7	+31.3
Philadelphia, Pa.....	-1	+2.2	+2.7	+11.8	+29.2	+31.1
Pittsburgh, Pa.....	-5	+1.7	+4.2	+12.3	+28.6	+32.2
St. Louis, Mo.....	+5	+1.8	+2.8	+10.3	+26.2	+30.0
San Francisco, Calif.....	-8	+2.4	+3.4	+12.7	+30.2	+33.4
Savannah, Ga.....	+4	+1.9	+4.8	+14.3	+36.3	+39.2
Seattle, Wash.....	+2	+2.4	+2.5	+9.6	+30.1	+32.4
Washington, D. C.....	-1	+3.0	+4.0	+12.2	+28.8	+30.5

TABLE 3.—Percent of Change in Consumers' Price Index, July 1945 to August 1945, by Groups of Items and by Cities

City	All items	Food	Clothing	Fuel, electricity, and ice	House-furnishings	Miscellaneous
Average	-0.2	-0.6	+0.3	+0.2	+0.1	+0.2
Atlanta, Ga.		0		0		
Baltimore, Md.	-4	-9	0	0	+1	0
Birmingham, Ala.	+2	+4	+3	0	+4	+1
Boston, Mass.	-2	-7	+1	+3	+1	+6
Buffalo, N. Y.	+1	-4	+5	+6	-5	+4
Chicago, Ill.	-4	-1	-1	+2	-3	+1
Cincinnati, Ohio	-2	-6	+8	+4	-1	+1
Cleveland, Ohio	0	-1	-3	+1	+1	+1
Denver, Colo.	-1	-4	+3	+7	+6	0
Detroit, Mich.	+2	+1	+5	+7	+2	+7
Houston, Tex.	-1	-3	0	0	0	0
Indianapolis, Ind.		+7		+2		
Jacksonville, Fla.		-3		0		
Kansas City, Mo.	+1	+3	+5	-4	-1	0
Los Angeles, Calif.	+2	+5	+4	0	+5	+1
Manchester, N. H.		-2		+2		
Memphis, Tenn.		+1		0		
Milwaukee, Wis.		-9		+5		
Minneapolis, Minn.	-1	-4	-3	+9	0	+1
Mobile, Ala.		+8		-2		
New Orleans, La.		-7		0		
New York, N. Y.	-5	-1.5	+1.2	+1	+5	0
Norfolk, Va.		+6		+1		
Philadelphia, Pa.	-1	-2	+3	+1	+1	0
Pittsburgh, Pa.	-5	-8	-1.4	+3	+6	+2
Portland, Maine		-5		+3		
Portland, Oreg.		-1.0		-1		
Richmond, Va.		+6		+1		
St. Louis, Mo.	+5	+8	+4	+1	0	0
San Francisco, Calif.	-8	-2.0	0	0	-2	0
Savannah, Ga.	+4	+6	+5	0	+1.0	0
Scranton, Pa.		-9		+3		
Seattle, Wash.	+2	+1	+3	0	0	0
Washington, D. C.	-1	-4	+2	+3	+1	0

¹ Index for July 15, 1945 revised: Food 139.4.

TABLE 4.—Consumers' Price Indexes for Moderate-Income Families in Large Cities, 1935 to August 1945

Year and month	Indexes ¹ (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944	125.5	136.1	138.8	108.2	109.8	136.4	121.3
Jan. 15	124.2	136.1	134.7	108.1	109.5	128.3	118.4
Feb. 15	123.8	134.5	135.2	108.1	110.3	128.7	118.7
Mar. 15	123.8	134.1	136.7	108.1	109.9	129.0	119.1
Apr. 15	124.6	134.6	137.1	108.1	109.9	132.9	120.9
May 15	125.1	135.5	137.4	108.1	109.8	135.0	121.3
June 15	125.4	135.7	138.0	108.1	109.6	138.4	121.7
July 15	126.1	137.4	138.3	108.2	109.7	138.7	122.0
Aug. 15	126.4	137.7	139.4	108.2	109.8	139.3	122.3
Sept. 15	126.5	137.0	141.4	108.2	109.8	140.7	122.4
Oct. 15	126.5	136.4	141.9	(²)	109.8	141.4	122.8
Nov. 15	126.6	136.5	142.1	(²)	109.9	141.7	122.9
Dec. 15	127.0	137.4	142.8	108.3	109.4	143.0	123.1
1945:							
Jan. 15	127.1	137.3	143.0	(²)	109.7	143.6	123.3
Feb. 15	126.9	136.5	143.3	(²)	110.0	144.0	123.4
Mar. 15	126.8	135.9	143.7	108.3	110.0	144.5	123.6
Apr. 15	127.1	136.6	144.1	(²)	109.8	144.9	123.8
May 15	128.1	138.8	144.6	(²)	110.0	145.4	123.9
June 15	129.0	141.1	145.4	108.3	110.0	145.8	124.0
July 15	129.4	141.7	145.7	(²)	111.2	145.3	124.2
Aug. 15	129.2	140.9	146.2	(²)	111.4	145.5	124.4

¹ Based on changes in cost of goods purchased by wage earners and lower-salaried workers.

² Rents not surveyed in this month.

Retail Prices of Food in August 1945

PERCENTAGE changes in retail food costs on August 14, 1945, as compared with costs in the previous month and in August 1944, are shown in table 1.

TABLE 1.—Percent of Change in Retail Costs of Food in 56 Large Cities Combined,¹ by Commodity Groups, in Specified Periods

Commodity group	July 17, 1945, to Aug. 14, 1945	Aug. 15, 1944, to Aug. 14, 1945	May 18, 1943, to Aug. 14, 1945	Jan. 14, 1941, to Aug. 14, 1945	Aug. 15, 1939, to Aug. 14, 1945
All foods.....	-0.6	+2.3	-1.5	+44.1	+50.7
Cereals and bakery products.....	0	+6	+1.4	+15.0	+16.8
Meats.....	+2	+2.2	-4.7	+30.4	+37.7
Beef and veal.....	0	-1	-9.7	+8.3	+19.0
Pork.....	-1	+5	-10.3	+30.8	+28.0
Lamb.....	+3	+1.3	-3.7	+38.2	+38.1
Chickens.....	+7	+5.0	+6.6	+61.8	+66.3
Fish, fresh and canned.....	+2	+10.0	+8.6	+83.5	+118.7
Dairy products.....	0	-1	-2.6	+26.9	+43.3
Eggs.....	+9.0	+7.5	+20.6	+76.0	+89.0
Fruits and vegetables.....	-4.3	+4.4	-3.8	+96.7	+98.6
Fresh.....	-5.1	+5.1	-4.7	+110.1	+111.4
Canned.....	+1	+8	-6	+42.6	+42.2
Dried.....	-2	+2.2	+6.7	+69.3	+86.7
Beverages.....	0	+3	+2	+37.2	+31.4
Fats and oils.....	0	+1.1	-1.8	+54.4	+46.7
Sugar and sweets.....	+1	+1	-8	+32.8	+32.4

¹ The number of cities included in the index was changed from 51 to 56 in March 1943, with the necessary adjustments for maintaining comparability. At the same time the number of foods in the index was increased from 54 to 61.

TABLE 2.—Indexes of Retail Costs of Food in 56¹ Large Cities Combined,² by Commodity Groups, on Specified Dates

[1935-39=100]

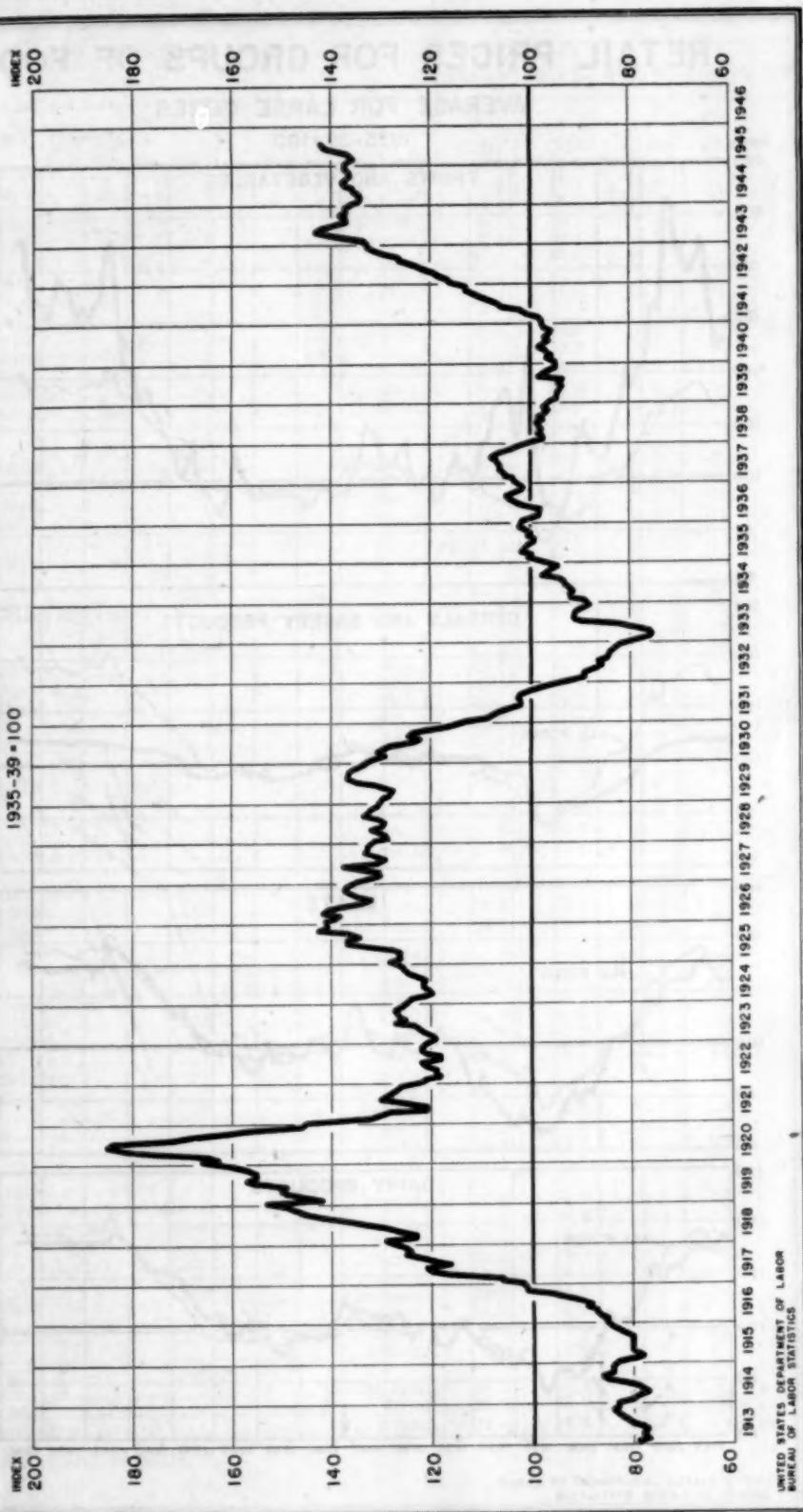
Commodity group	1945		1944	1943	1941	1939
	Aug. 14 ³	July 17	Aug. 15	May 18	Jan. 14	Aug. 15
All foods.....	140.9	141.7	137.7	143.0	97.8	93.5
Cereals and bakery products.....	109.1	109.1	108.5	107.6	94.9	93.4
Meats.....	131.8	131.6	129.0	138.3	101.1	95.7
Beef and veal.....	118.5	118.5	118.6	131.2	109.4	99.6
Pork.....	112.6	112.7	112.0	125.5	86.1	88.0
Lamb.....	136.4	136.0	134.7	141.6	98.7	98.8
Chickens.....	157.3	156.2	149.8	147.6	97.2	94.6
Fish, fresh and canned.....	217.8	217.3	198.0	200.5	118.7	99.6
Dairy products.....	133.4	133.4	133.6	136.9	105.1	93.1
Eggs.....	171.4	157.2	159.4	142.1	97.4	90.7
Fruits and vegetables.....	183.5	191.8	175.7	190.8	93.3	92.4
Fresh.....	196.2	206.7	186.7	205.8	93.4	92.8
Canned.....	130.3	130.2	129.3	131.1	91.4	91.6
Dried.....	168.6	168.9	165.0	158.0	99.6	90.3
Beverages.....	124.7	124.7	124.3	124.5	90.9	94.9
Fats and oils.....	124.0	124.0	122.7	126.3	80.3	84.5
Sugar and sweets.....	126.6	126.5	126.5	127.6	95.3	95.6

¹ Indexes based on 51 cities combined prior to March 1943.

² Aggregate costs of 61 foods (54 foods prior to March 1943) in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined with the use of population weights.

³ Preliminary.

RETAIL PRICES OF FOOD TO CITY WORKERS AVERAGE FOR LARGE CITIES



1945, as
1944, are

Combined,¹

Aug. 15, 1939, to Aug. 14, 1945
+50.7
+16.8
+37.7
+19.0
+28.0
+38.1
+66.3
+118.7
+43.3
+80.0
+98.6
+111.4
+42.2
+86.7
+31.4
+46.7
+32.4

the necessary
index was in

ined,² by

1939
Aug. 15
93.5
93.4
95.7
99.6
88.0
98.8
94.6
99.6
93.1
90.7
92.4
92.8
91.6
90.3
94.9
84.5
95.6

at total pur-
population

RETAIL PRICES FOR GROUPS OF FOOD

AVERAGE FOR LARGE CITIES

1935-39 = 100

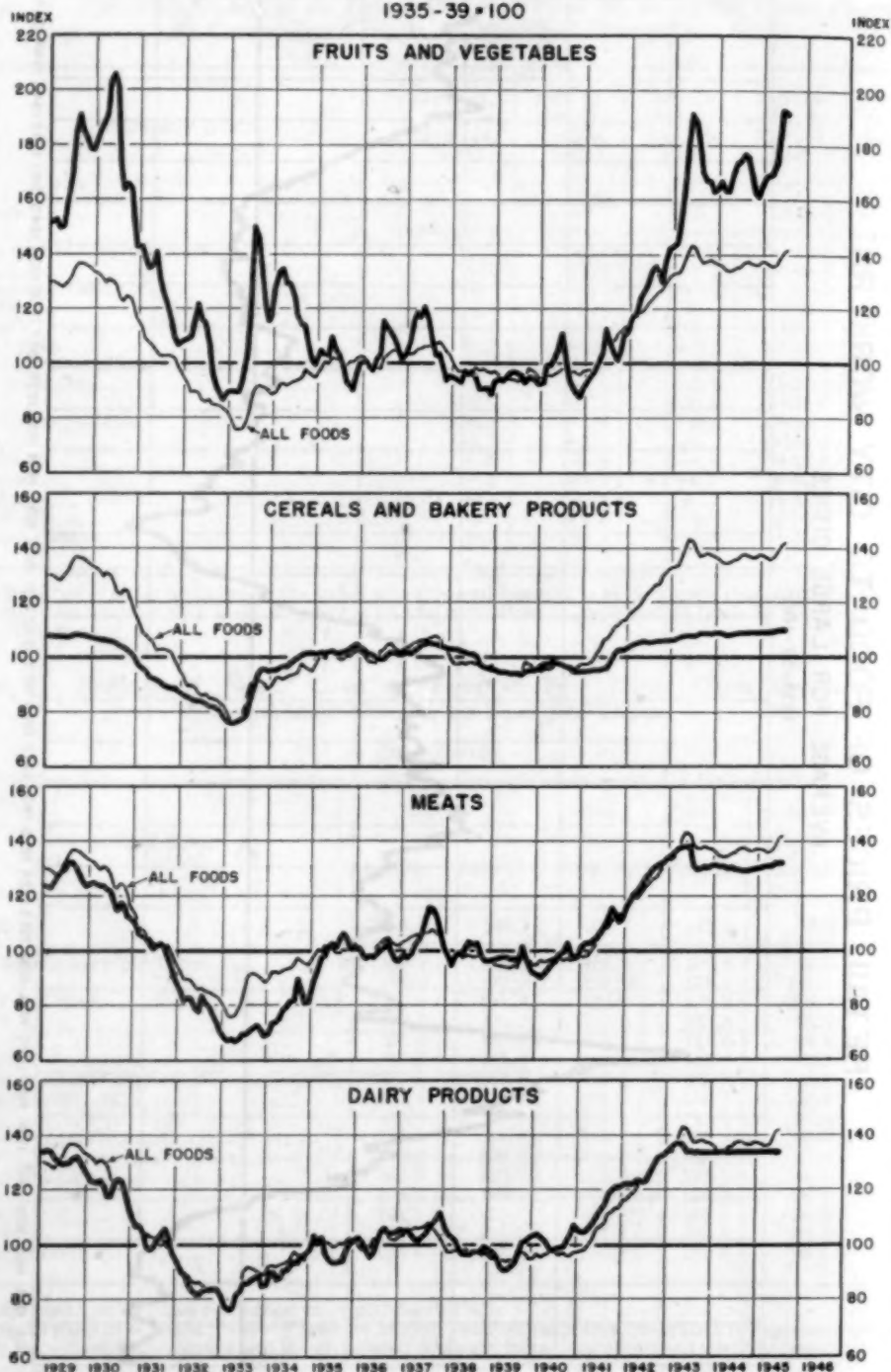
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 3.—Average Retail Prices of 78 Foods in 56 Large Cities Combined,¹ August 1945, Compared With Earlier Months

Article	1945		1944	1941	1939
	Aug. 14 ²	July 17	Aug. 15	Jan. 14	Aug. 15
Cereals and bakery products:					
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat..... 10 pounds.....	64.3	64.3	64.6	41.4	35.8
Macaroni..... pound.....	15.8	15.7	15.8	13.8	14.0
Wheat cereal ³ 28 ounces.....	23.4	23.3	23.2	23.5	24.2
Corn flakes..... 8 ounces.....	6.7	6.7	6.5	7.1	7.0
Corn meal..... pound.....	6.4	6.4	6.3	4.2	4.0
Rice ³ do.....	13.0	13.0	12.9	7.9	7.5
Rolled oats..... do.....	10.4	10.4	9.9	7.1	7.1
Flour, pancake ³ 20 ounces.....	12.4	12.4	12.2	(⁴)	(⁴)
Bakery products:					
Bread, white..... pound.....	8.8	8.8	8.8	7.8	7.8
Bread, whole-wheat..... do.....	9.7	9.7	9.6	8.7	8.8
Bread, rye..... do.....	9.9	9.9	9.9	9.0	9.2
Vanilla cookies..... do.....	28.6	28.8	28.1	25.1	(⁴)
Soda crackers..... do.....	18.9	18.9	19.0	15.0	14.8
Meats:					
Beef:					
Round steak..... do.....	40.9	40.1	41.2	38.6	36.4
Rib roast..... do.....	33.0	32.3	33.1	31.5	28.9
Chuck roast..... do.....	28.4	27.9	28.7	25.2	22.5
Stew meat ³ do.....	30.0	29.4	31.0	(⁴)	(⁴)
Liver..... do.....	36.9	35.6	37.2	(⁴)	(⁴)
Hamburger..... do.....	27.4	27.2	27.7	(⁴)	(⁴)
Veal:					
Cutlets..... do.....	44.4	43.5	45.2	45.2	42.5
Roast, boned and rolled ³ do.....	34.3	34.4	35.0	(⁴)	(⁴)
Pork:					
Chops..... do.....	37.2	36.9	37.3	29.1	30.9
Bacon, sliced..... do.....	41.2	41.1	40.9	30.1	30.4
Ham, sliced..... do.....	49.4	49.2	50.4	45.1	46.4
Ham, whole..... do.....	34.5	34.6	35.3	26.2	27.4
Salt pork..... do.....	22.0	22.1	22.1	16.7	15.4
Liver ³ do.....	22.1	22.1	21.9	(⁴)	(⁴)
Sausage ³ do.....	38.7	38.6	38.1	(⁴)	(⁴)
Bologna, big ³ do.....	33.9	33.7	34.1	(⁴)	(⁴)
Lamb:					
Leg..... do.....	40.5	39.8	40.0	27.8	27.6
Rib chops..... do.....	46.0	45.2	45.3	35.0	36.7
Poultry: Roasting chickens..... do.....	47.6	47.1	44.6	31.1	30.9
Fish:					
Fish (fresh, frozen)..... do.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Salmon, pink..... 16-oz. can.....	23.4	23.6	23.6	15.7	12.8
Salmon, red ³ do.....	39.7	40.2	40.4	26.4	23.1
Dairy products:					
Butter..... pound.....	49.9	49.9	50.0	38.0	30.7
Cheese..... do.....	35.7	35.4	36.1	27.0	24.7
Milk, fresh (delivered)..... quart.....	15.6	15.6	15.6	13.0	12.0
Milk, fresh (store)..... do.....	14.5	14.5	14.5	11.9	11.0
Milk, evaporated..... 14½-oz. can.....	10.1	10.1	10.0	7.1	6.7
Eggs: Eggs, fresh..... dozen.....	60.6	55.3	56.5	34.9	32.0
Fruits and vegetables:					
Fresh fruits:					
Apples..... pound.....	13.1	12.5	11.0	5.2	4.4
Bananas..... do.....	10.5	10.5	11.2	6.6	6.1
Oranges..... dozen.....	51.3	52.7	50.9	27.3	31.5
Grapefruit ³ each.....	11.0	11.3	10.4	(⁷)	(⁷)
Fresh vegetables:					
Beans, green..... pound.....	18.7	24.0	14.1	14.0	7.2
Cabbage..... do.....	6.0	6.6	4.9	3.4	3.9
Carrots..... bunch.....	9.1	9.2	8.7	6.0	4.6
Lettuce..... head.....	12.5	12.3	10.8	8.4	8.4
Onions..... pound.....	7.9	9.3	6.5	3.6	3.6
Potatoes..... 15 pounds.....	73.8	81.9	80.1	29.2	34.4
Spinach..... pound.....	11.6	11.9	11.6	7.3	7.8
Sweetpotatoes..... do.....	16.4	11.5	12.3	5.0	5.5
Beets ³ bunch.....	8.4	9.0	7.3	(⁴)	(⁴)
Canned fruits:					
Peaches..... No. 2½ can.....	27.2	27.4	27.7	16.5	17.1
Pineapple..... do.....	26.3	26.9	27.3	20.9	21.0
Grapefruit juice..... No. 2 can.....	14.4	14.4	14.4	(⁷)	(⁷)

See footnotes at end of table.

TABLE 3.—Average Retail Prices of 78 Foods in 56 Large Cities Combined,¹ August 1945, Compared With Earlier Months—Continued

Article	1945		1944	1941	1939
	Aug. 14 ²	July 17	Aug. 15	Jan. 14	Aug. 15
Fruits and vegetables—Continued.					
Canned vegetables:					
Beans, green.....No. 2 can..	13.2	13.1	13.2	10.0	10.0
Corn.....do.....	14.8	14.8	14.5	10.7	10.4
Peas.....do.....	13.2	13.2	13.1	13.2	13.6
Tomatoes.....do.....	12.2	12.2	12.0	8.4	8.6
Soup, vegetable ³.....11-oz. can..	13.2	13.4	13.4	(⁴)	(⁵)
Dried fruits: Prunes.....pound..	17.4	17.7	17.3	9.6	8.8
Dried vegetables:					
Navy beans.....do.....	11.5	11.5	10.8	6.5	5.8
Soup, dehydrated, chicken noodle ³.....ounce..	3.8	3.8	3.6	(⁴)	(⁵)
Beverages:					
Coffee.....pound..	30.5	30.4	30.1	20.7	22.3
Tea..... ³ / ₄ pound..	24.2	24.2	23.9	17.6	17.2
Cocoa ³ ³ / ₄ pound..	10.4	10.4	10.3	9.1	8.6
Fats and oils:					
Lard.....pound..	18.8	18.7	18.6	9.3	9.9
Shortening other than lard:					
In cartons.....do.....	20.0	20.0	20.2	11.3	11.7
In other containers.....do.....	24.5	24.5	24.8	18.3	20.2
Salad dressing.....pint..	24.2	24.3	25.6	20.1	(⁶)
Oleomargarine.....pound..	23.9	23.8	24.0	15.6	16.5
Peanut butter.....do.....	28.6	28.5	28.4	17.9	17.9
Oil, cooking or salad ³.....pint..	30.5	30.4	30.7	(⁴)	(⁵)
Sugar and sweets:					
Sugar.....pound..	6.7	6.7	6.7	5.1	5.2
Corn sirup.....24 ounces..	15.8	15.8	15.8	13.6	13.7
Molasses ³.....18 ounces..	15.8	15.8	15.8	13.4	13.6
Apple butter ³.....16 ounces..	14.1	14.1	13.3	(⁴)	(⁵)

¹ Data are based on 51 cities combined prior to January 1943.² Preliminary.³ Not included in index.⁴ First priced, February 1943.⁵ Not priced.⁶ Composite price not computed.⁷ First priced, October 1941.

TABLE 4.—Indexes of Average Retail Costs of All Foods, by Cities, ¹ on Specified Dates

[1935=100]

City	1943		1944	1941	1939
	Aug. 14 ²	July 17	Aug. 15	Jan. 14	Aug. 15
United States.....	140.9	141.7	137.7	97.8	93.5
Atlanta, Ga.....	142.1	142.1	139.2	94.3	92.5
Baltimore, Md.....	149.1	150.4	143.5	97.9	94.7
Birmingham, Ala.....	147.5	146.9	145.4	96.0	90.7
Boston, Mass.....	135.7	136.6	132.2	95.2	93.5
Bridgeport, Conn.....	137.4	138.7	135.1	96.5	93.2
Buffalo, N. Y.....	138.4	138.9	134.0	100.2	94.5
Butte, Mont.....	138.7	138.7	133.7	98.7	94.1
Cedar Rapids, Iowa ³	145.3	145.4	139.1	95.9	-----
Charleston, S. C.....	139.7	139.4	135.4	95.9	95.1
Chicago, Ill.....	139.2	140.7	137.1	98.2	92.3
Cincinnati, Ohio.....	140.0	140.8	136.8	96.5	90.4
Cleveland, Ohio.....	145.6	145.8	144.3	99.2	93.6
Columbus, Ohio.....	134.0	133.4	130.2	93.4	88.1
Dallas, Tex.....	138.9	137.7	135.5	92.6	91.7
Denver, Colo.....	139.3	139.8	137.1	94.8	92.7
Detroit, Mich.....	138.4	138.3	134.4	97.0	90.6
Fall River, Mass.....	134.1	134.8	132.3	97.5	95.4
Houston, Tex.....	141.2	141.6	137.8	102.6	97.8
Indianapolis, Ind.....	137.7	136.8	134.4	98.2	90.7
Jackson, Miss. ²	151.2	149.4	142.9	105.3	-----
Jacksonville, Fla.....	152.0	152.4	148.9	98.8	95.8
Kansas City, Mo.....	135.4	135.0	131.2	92.4	91.5
Knoxville, Tenn. ³	160.6	161.1	158.6	97.1	-----
Little Rock, Ark.....	140.4	141.0	137.7	95.6	94.0
Los Angeles, Calif.....	145.9	145.2	141.1	101.8	94.6
Louisville, Ky.....	135.0	134.3	133.4	95.5	92.1
Manchester, N. H.....	136.4	139.4	135.0	96.6	94.9
Memphis, Tenn.....	150.9	150.7	148.3	94.2	89.7
Milwaukee, Wis.....	139.4	140.6	136.4	95.9	91.1
Minneapolis, Minn.....	133.2	133.7	130.5	99.0	95.0
Mobile, Ala.....	152.3	151.1	147.1	97.9	95.5
Newark, N. J.....	143.4	145.1	138.4	98.8	95.6
New Haven, Conn.....	137.2	139.0	136.0	95.7	93.7
New Orleans, La.....	156.5	157.6	152.7	101.9	97.6
New York, N. Y.....	141.7	143.8	138.9	99.5	95.8
Norfolk, Va. ⁴	146.1	145.3	144.8	95.8	93.6
Omaha, Nebr.....	131.8	133.5	129.7	97.9	92.3
Peoria, Ill.....	145.9	144.8	141.1	99.0	93.4
Philadelphia, Pa.....	138.9	139.2	136.1	95.0	93.0
Pittsburgh, Pa.....	141.3	142.4	138.7	98.0	92.5
Portland, Maine.....	135.7	136.4	136.5	95.3	95.9
Portland, Oreg.....	150.9	152.5	145.3	101.7	96.1
Providence, R. I.....	141.6	141.9	136.8	96.3	93.7
Richmond, Va.....	138.3	137.5	136.5	93.7	92.2
Rochester, N. Y.....	137.8	138.2	133.0	90.9	92.3
St. Louis, Mo.....	144.0	142.9	140.1	99.2	93.8
St. Paul, Minn.....	132.1	132.2	128.5	98.6	94.3
Salt Lake City, Utah.....	143.9	144.8	139.9	97.5	94.6
San Francisco, Calif.....	147.1	150.1	142.4	99.6	93.8
Savannah, Ga.....	157.5	156.6	154.7	100.5	96.7
Scranton, Pa.....	141.3	142.6	138.8	97.5	92.1
Seattle, Wash.....	145.8	145.7	141.6	101.0	94.5
Springfield, Ill.....	146.1	144.7	142.5	96.2	94.1
Washington, D. C.....	141.7	142.2	136.7	97.7	94.1
Wichita, Kans. ⁵	149.8	150.9	147.8	97.2	-----
Winston-Salem, N. C. ³	143.4	143.1	138.8	93.7	-----

¹ Aggregate costs of 61 foods in each city (54 foods prior to March 1943), weighted to represent total purchases by wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

² Preliminary.

³ June 1940=100.

⁴ Includes Portsmouth and Newport News.

⁵ Revised.

TABLE 5.—*Indexes of Retail Food Costs in 56 Large Cities Combined,¹ 1913 to August 1945*

[1935-39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913.....	79.9	1929.....	132.5	1944		1945	
1914.....	81.8	1930.....	126.0	January.....	136.1	January.....	137.3
1915.....	80.9	1931.....	103.9	February.....	134.5	February.....	136.5
1916.....	90.8	1932.....	86.5	March.....	134.1	March.....	135.9
1917.....	116.9	1933.....	84.1	April.....	134.6	April.....	136.6
1918.....	134.4	1934.....	93.7	May.....	135.5	May.....	138.8
1919.....	149.8	1935.....	100.4	June.....	135.7	June.....	141.1
1920.....	168.8	1936.....	101.3	July.....	137.4	July.....	141.7
1921.....	128.3	1937.....	105.3	August.....	137.7	August.....	140.9
1922.....	119.9			September.....	137.0		
1923.....	124.0	1938.....	97.8	October.....	136.4		
1924.....	122.8	1939.....	95.2	November.....	136.5		
1925.....	132.9	1940.....	96.6	December.....	137.4		
		1941.....	105.5				
1926.....	137.4	1942.....	123.9				
1927.....	132.3	1943.....	138.0				
1928.....	130.8	1944.....	136.1				

¹ Indexes based on 51 cities combined prior to March 1943.

Supplies of Food in Independent Retail Stores, August 1945

MEAT counters in retail stores were better stocked in mid-August 1945 than at any time since March, according to field representatives of the Bureau of Labor Statistics who visited independent retail stores in 56 large cities. Supplies of margarine, canned pineapple, and pineapple juice were also larger, while applesauce, mixed fruits, lard, cooking and salad oils, and sugar were less plentiful than when last surveyed.

More beef and more prepared meats were available to food shoppers than in mid-July, while stocks of veal, lamb, and pork remained about the same as in July. Beef was found in three-fifths of the stores, as compared with 45 percent in July, and frankfurters and bologna in 85 percent compared to 72 percent in the previous month. Approximately a fourth of the reporting retailers had veal and pork and more than two-fifths had lamb. Although supplies of meat were generally better than during the preceding few months, they were below the level of August 1944, when four-fifths of the stores had beef, three-fourths had lamb, and 70 percent had veal and pork.

All sections of the country benefited by the increased supplies of beef, and there was more meat of all kinds and grades in the South, Midwest, and Rocky Mountain areas. The most marked improvement was in the Southeast, where a third of the stores had beef, a fifth had lamb, and 14 percent had veal and bacon; during the previous months more than 90 percent of the independent stores in that region had no fresh meats. The Middle Atlantic region showed the greatest decrease in supply, with veal, lamb, and pork less plentiful than in July. There was also less pork in the Cleveland and Pacific Coast areas.

Butter was available in over 90 percent of the stores and shortening in almost two-thirds. More than 90 percent of the grocers had

margarine, an increase from 72 percent in July, but lard was less plentiful in all sections and fewer stores had cooking and salad oils.

Canned applesauce and canned mixed fruits were more scarce, but canned pineapple and pineapple juice were found in more stores than when they were last included in the survey. However, more than two-thirds of the grocers supplied with canned pineapple and three-fifths of those with pineapple juice had less than 2 weeks' supply on hand. Grape juice was still obtainable in 90 percent of the stores. Over 10 percent of the grocers had no stocks of canned baked beans, but supplies of canned spinach, tomato catsup and chili sauce, and evaporated milk, were available in most stores.

The number of grocers without sugar increased from 22 percent to 26 percent, the greatest scarcity being reported in the southeastern and Cleveland region, where 40 percent of the stores were without stocks. There were also smaller supplies in the New England, Middle Atlantic, and Midwestern States, but the Rocky Mountain and Pacific Coast regions reported no shortage.

Independent Retail Stores Without Supplies of Specified Foods on July 17 and August 14, 1945, in 56 Large Cities

Commodity	Percent of stores without supplies of specified foods ¹									
	July 17, 1945— 56 large cities	August 14, 1945								
		56 large cities	Region ²							
			I	II	III	IV	V	VI	VII	VIII
Meats:										
Beef, steaks and roasts.....	55	40	49	43	24	67	39	51	6	4
Beef, all other.....	60	44	50	47	34	67	43	51	25	9
Veal steaks, chops, and roasts.....	74	74	85	79	68	86	60	73	67	57
Veal, all other.....	74	76	³ 90	83	68	87	56	77	68	56
Lamb.....	57	57	65	55	68	80	59	68	37	6
Pork, loins and hams.....	79	77	77	81	79	³ 90	78	63	54	73
Pork, bacon.....	77	76	66	82	80	84	70	63	54	75
Frankfurters and bologna.....	28	15	12	29	1	11	13	3	1	3
Fats and oils:										
Butter.....	5	5	12	⁶	3	10	⁴ 0	⁴ 0	⁴ 0	10
Margarine.....	28	9	18	14	5	16	1	7	⁴ 0	⁴ 0
Shortening.....	35	35	18	43	37	66	27	23	6	23
Lard.....	30	35	18	54	16	54	36	8	14	35
Cooking and salad oils.....	27	29	36	28	30	73	35	16	8	11
Processed foods:										
Applesauce, canned.....	⁴ 4	14	6	18	13	10	15	9	33	13
Mixed fruits, canned.....	⁶ 53	69	60	73	82	79	60	75	6	44
Pineapple, canned.....	⁶ 83	80	61	67	³ 90	³ 90	³ 90	90	³ 90	87
Grape juice.....	⁷ 10	11	2	12	12	14	20	11	8	4
Pineapple juice, canned.....	⁷ 66	55	40	57	53	62	63	55	28	63
Spinach, canned.....	⁶ 3	2	5	4	1	⁴ 0	4	2	⁴ 0	⁴ 0
Tomato catsup or chili sauce.....	⁷ 1	2	3	3	2	2	⁴ 0	2	⁴ 0	⁴ 0
Beans, baked, canned.....	(⁵)	13	17	4	24	5	5	7	18	64
Milk, evaporated, canned.....	1	⁴ 0	⁴ 0	⁴ 0	⁴ 0	2	⁴ 0	⁴ 0	⁴ 0	1
Sugar, granulated.....	22	26	16	31	40	40	18	22	⁴ 0	⁴ 0

¹ Data are weighted by the number of independent food stores in each city to derive regional and all-region percentages.

² Regions consist of the following cities: *Region I.*—Boston, Bridgeport, Fall River, Manchester, New Haven, Portland, Me., Providence. *Region II.*—Baltimore, Buffalo, Newark, New York, Philadelphia, Pittsburgh, Rochester, Scranton, Washington, D. C. *Region III.*—Cincinnati, Cleveland, Columbus, Detroit, Indianapolis, Louisville. *Region IV.*—Atlanta, Birmingham, Charleston, S. C., Jackson, Miss., Jacksonville, Knoxville, Memphis, Mobile, Norfolk, Richmond, Savannah, Winston-Salem. *Region V.*—Dallas, Houston, Kansas City, Mo., Little Rock, New Orleans, St. Louis, Wichita. *Region VI.*—Cedar Rapids, Chicago, Milwaukee, Minneapolis, Omaha, Peoria, St. Paul, Springfield, Ill. *Region VII.*—Butte, Denver, Salt Lake City. *Region VIII.*—Los Angeles, Portland, Oreg., San Francisco, Seattle.

³ Over 90 percent out of stock.

⁴ Some size, quality, or variety of the commodity was available in all stores surveyed.

⁵ March 13, 1945, was last date surveyed.

⁶ June 12, 1945, was last date surveyed.

⁷ May 13, 1945, was last date surveyed.

⁸ Not included in the survey this month. List of foods covered is changed from time to time.

Wages and Food Prices in the Dominican Republic, 1944¹

WAGES paid for common labor in the Dominican Republic, both in the sugar industry and in other activities, in 1944 remained at their former low levels. On the other hand, prices for everyday necessities were said to have increased greatly during the year. Earnings of employees of the Dominican Government and small industries have not been increased during the war. Although there are no official data, information available indicates that in January 1944 the prevailing wage rate for common labor ranged from 50 to 60 cents per day in the capital, and from 30 to 40 cents per day in other sections of the country.

At the same time that wages remained relatively unchanged, prices of essential goods, all produced domestically, increased from 100 to 400 percent, and in one instance even 600 percent (for potatoes, which are not in very general use). The following tabulation shows retail prices during 1944 of foods in common use by the general population, as compared with prewar retail prices.

		<i>Retail price, November 1944</i>	<i>Retail price, 1939-40</i>	<i>Percent of increase</i>
Beans	pound	\$0. 06	\$0. 03	100
Milk	quart	. 10	. 04	150
Lard	pound	. 50	. 15	233
Potatoes	do	. 17	. 02	750
Rice	do	. 15	. 05	200
Meat	do	. 25	. 08	213
Corn	do	. 08	. 02	300
Plantains	dozen	. 36	. 09	300

The indicated rise in price of these foods has resulted in dietary changes, particularly in agricultural regions. Rice, which was the common staple food of the population, has been replaced to some extent by other items such as corn and beans.

¹ Data are from reports from United States Embassy, Ciudad Trujillo, by A. M. Warren, January 8, 1944 (No. 1451); and by M. J. Broderick, R. P. Stovall, and A. R. Marrero, June 20, 1945 (No. 71).

Wholesale Prices

Wholesale Prices in August 1945

SUBSTANTIALLY lower prices for agricultural commodities, which more than offset advances for a number of industrial goods, caused a decline of 0.2 percent during August in the primary-market¹ commodity price index of the Bureau of Labor Statistics. This second consecutive monthly decline brought the index to 105.7 percent of the 1926 average—1.7 percent above August 1944 and 40.9 percent above the level of August 1939.

Average market prices for farm products dropped 1.6 percent during August and food prices, 0.5 percent. The group index for fuel and lighting materials advanced 0.6 percent and that for building materials 0.3 percent. Average prices for hides and leather products, textile products, metals and metal products, chemicals and allied products, housefurnishing goods, and miscellaneous commodities remained unchanged over the month.

The group index for raw materials declined 1.0 percent during August, while semimanufactured articles advanced 0.2 percent and manufactured products remained unchanged.

The decline of 1.6 percent in the group index for farm products reflected generally lower prices for agricultural commodities. Among the grains, large crops depressed lower prices for oats and wheat. Reduced demand, particularly for distilling purposes, caused a decline in rye quotations. Livestock prices were generally lower during August, reflecting the effects of the 2-day holiday following the end of the war which backed up supplies of cattle in slaughterers' yards. A large supply of grass-fed animals and continued shortage of choice animals caused a somewhat greater decline in prices for lower quality than for high quality steers. Quotations for sheep were generally lower on an unsettled market and reduced demand. Live poultry prices were down seasonally. Cotton quotations declined nearly 1 percent during the month as a result of the cancellation of military contracts, uncertainties of mill operations during reconversion, and the possibility of modification of Government prices. Quotations for eggs were higher seasonally. Prices for lemons and oranges declined with a decrease in military purchases and large crops. White potatoes declined more than seasonally with the removal of disaster ceiling adjustments in some areas, and onion prices dropped nearly 25 percent from the record high levels of previous months. Quotations for hay were down with a heavy crop and disinclination on the part of buyers to store large quantities. Apple prices advanced in eastern

¹ The Bureau of Labor Statistics wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

markets as temporary higher ceilings were granted for August and September. Sweetpotatoes advanced seasonally, and fresh milk at Chicago and tobacco quotations were fractionally higher.

A drop of 4.6 percent in average prices for fruits and vegetables was largely responsible for the 0.5-percent decrease in the group index for foods. In addition, quotations for oatmeal were seasonally lower and rye flour prices followed the decline in quotations for grain. Dressed poultry prices decreased seasonally.

Prices for shearlings continued to advance during the month, reflecting demand for these sheepskins for use in women's coats and in house slippers. This advance was not sufficient to affect the group index for hides and leather products.

The rise of 0.6 percent in average prices for fuel and lighting materials reflected higher prices for coal and coke. Average prices for bituminous coal increased 0.6 percent, because of OPA adjustments of ceilings in 13 of 22 producing districts. These adjustments, resulting in ceiling increases of 3 to 20 cents per ton, followed a restudy of increases granted earlier in the year. Byproduct coke prices rose after a 40 cents per ton ceiling advance by OPA to cover increased costs for coal and labor. Anthracite prices were fractionally higher, and sales realizations for electricity advanced while realizations for gas were down fractionally.

Average prices for farm machinery and agricultural implements advanced fractionally after further upward adjustments in ceilings permitted individual manufacturers by OPA. Cold-finished steel bars rose, following an increase in the base price to compensate for price increases on hot rolled bars granted earlier in the year. Mercury prices continued to decline, reflecting reduced demand and increased supplies of this metal. These changes did not affect the group index for metals and metal products, which remained unchanged at the July level.

Average prices for building materials advanced 0.3 percent during the month, reflecting price increases for a number of products. Southern pine boards, drop sidings, and timbers were higher and dimension was lower after a number of ceiling adjustments by OPA. Quotations for Douglas fir boards declined during the month with the elimination of premium prices on military orders. These changes, together with both upward and downward movements in mill realizations for western species of pine, resulted in a net increase of 0.1 percent in average prices for lumber. Quotations for rosin advanced more than 12 percent after a ceiling adjustment ordered by the Office of Economic Stabilization. Prices for butyl acetate advanced, and turpentine quotations were higher seasonally. Prices for lavatories rose as additional manufacturers moved to ceiling prices. Manufacturers' quotations on radiators were higher following ceiling adjustments to cover production costs. Prices for plasterboard increased as ceilings were raised to cover higher production costs.

An advance in quotations for ergot, reflecting a readjustment of the market following disposal of large stores by the Government, was not sufficient to affect the group index for chemicals and allied products.

Average prices for paper and pulp rose 0.3 percent as the result of a price advance for jute liner permitted by OPA.

TABLE 1.—Indexes of Wholesale Prices by Groups and Subgroups of Commodities, August 1945, Compared with July 1945, August 1944, and August 1939

Groups and subgroups	Indexes (1926=100)				Percent of change to August 1945 from—		
	August 1945	July 1945	August 1944	August 1939	July 1945	August 1944	August 1939
All commodities.....	105.7	105.9	103.9	75.0	-0.2	+1.7	+40.9
Farm products.....	126.9	129.0	122.6	61.0	-1.6	+3.5	+108.0
Grains.....	126.4	128.6	122.5	51.5	-1.7	+3.2	+145.4
Livestock and poultry.....	130.7	133.3	125.4	66.0	-2.0	+4.2	+98.0
Other farm products.....	123.7	125.5	120.0	60.1	-1.4	+3.1	+105.8
Foods.....	106.4	106.9	104.8	67.2	-.5	+1.5	+58.3
Dairy products.....	110.6	110.5	110.5	67.9	+1.1	+1.1	+62.9
Cereal products.....	95.1	95.3	94.3	71.9	-.2	+.8	+32.3
Fruits and vegetables.....	124.3	130.3	122.8	58.5	-4.6	+1.2	+112.5
Meats.....	107.9	108.0	105.9	73.7	-.1	+1.9	+46.4
Other foods.....	96.8	95.6	94.1	60.3	+1.3	+2.9	+60.5
Hides and leather products.....	118.0	118.0	116.0	92.7	0	+1.7	+27.3
Shoes.....	126.3	126.3	126.3	100.8	0	0	+25.3
Hides and skins.....	117.8	117.6	105.7	77.2	+1.2	+11.4	+52.6
Leather.....	101.3	101.3	101.3	84.0	0	0	+20.6
Other leather products.....	115.2	115.2	115.2	97.1	0	0	+18.6
Textile products.....	99.6	99.6	98.4	67.8	0	+1.2	+46.9
Clothing.....	107.4	107.4	107.0	81.5	0	+.4	+31.8
Cotton goods.....	119.7	119.7	115.9	65.5	0	+3.3	+82.7
Hosiery and underwear.....	71.5	71.5	70.6	61.5	0	+1.3	+16.3
Rayon.....	30.2	30.2	30.3	28.5	0	-.3	+6.0
Silk.....				44.3			
Woolen and worsted goods.....	112.7	112.7	112.9	75.5	0	+1.2	+49.3
Other textile products.....	100.9	100.9	100.5	63.7	0	+1.4	+58.4
Fuel and lighting materials.....	84.8	84.3	83.2	72.6	+1.6	+1.9	+16.8
Anthracite.....	101.8	101.6	95.4	72.1	+1.2	+6.7	+41.2
Bituminous coal.....	124.7	123.9	120.5	96.0	+1.6	+3.5	+29.9
Coke.....	134.0	131.0	130.7	104.2	+2.3	+2.5	+28.6
Electricity.....	(1)	(1)	59.0	75.8			
Gas.....	(1)	77.8	76.0	86.7			
Petroleum and products.....	64.2	64.2	63.9	51.7	0	+1.5	+24.2
Metals and metal products.....	104.7	104.7	103.8	93.2	0	+1.9	+12.3
Agricultural implements.....	97.8	97.7	97.5	93.5	+1.1	+1.3	+4.6
Farm machinery.....	98.8	98.7	98.6	94.7	+1.1	+1.2	+4.3
Iron and steel.....	99.1	99.1	97.1	95.1	0	+2.1	+4.2
Motor vehicles.....	112.8	112.8	112.8	92.5	0	0	+21.9
Nonferrous metals.....	85.8	85.9	85.8	74.6	-.1	0	+15.0
Plumbing and heating.....	93.4	92.6	92.4	79.3	+1.9	+1.1	+17.8
Building materials.....	117.8	117.5	116.0	89.6	+1.3	+1.6	+31.5
Brick and tile.....	111.6	111.7	100.7	90.5	-.1	+10.8	+23.3
Cement.....	99.4	99.4	96.4	91.3	0	+3.1	+8.9
Lumber.....	155.3	155.1	154.9	90.1	+1.1	+1.3	+72.4
Paint and paint materials.....	107.3	106.1	105.5	82.1	+1.1	+1.7	+30.7
Plumbing and heating.....	93.4	92.6	92.4	79.3	+1.9	+1.1	+17.8
Structural steel.....	107.3	107.3	107.3	107.3	0	0	0
Other building materials.....	104.3	104.3	103.2	89.5	0	+1.1	+16.5
Chemicals and allied products.....	95.3	95.3	95.5	74.2	0	-.2	+28.4
Chemicals.....	96.1	96.1	96.2	83.8	0	-.1	+14.7
Drugs and pharmaceuticals.....	110.2	110.2	112.0	77.1	0	-1.6	+42.9
Fertilizer materials.....	81.1	81.1	81.2	65.5	0	-.1	+23.8
Mixed fertilizers.....	86.6	86.6	86.6	73.1	0	0	+18.5
Oils and fats.....	102.0	102.0	102.0	40.6	0	0	+151.2
Housefurnishing goods.....	104.5	104.5	104.4	85.6	0	+1.1	+22.1
Furnishings.....	107.5	107.5	107.4	90.0	0	+1.1	+19.4
Furniture.....	101.5	101.5	101.4	81.1	0	+1.1	+25.2
Miscellaneous.....	94.8	94.8	93.6	73.3	0	+1.3	+29.3
Automobile tires and tubes.....	73.0	73.0	73.0	60.5	0	0	+20.7
Cattle feed.....	159.6	159.6	159.6	68.4	0	0	+133.3
Paper and pulp.....	109.3	109.0	107.2	80.0	+1.3	+2.0	+36.6
Rubber, crude.....	46.2	46.2	46.2	34.9	0	0	+32.4
Other miscellaneous.....	98.9	98.9	96.9	81.3	0	+2.1	+21.6
Raw materials.....	116.3	117.5	112.7	66.5	-1.0	+3.2	+74.9
Semimanufactured articles.....	95.5	95.3	94.1	74.5	+1.2	+1.5	+28.2
Manufactured products.....	101.8	101.8	100.9	79.1	0	+.9	+28.7
All commodities other than farm products.....	100.9	100.7	99.7	77.9	+1.2	+1.2	+29.5
All commodities other than farm products and foods.....	99.9	99.7	98.6	80.1	+1.2	+1.3	+24.7

(1) No quotation.

Index Numbers by Commodity Groups, 1926 to August 1945

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1944, and by months from August 1944 to August 1945, are shown in table 2.

TABLE 2.—Index Numbers of Wholesale Prices by Groups of Commodities

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936.....	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940.....	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941.....	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	87.3
1942.....	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	98.8
1943.....	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	103.1
1944.....	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	104.0
<i>1944</i>											
August.....	122.6	104.8	116.0	98.4	83.2	103.8	116.0	95.5	104.4	93.6	103.9
September.....	122.7	104.2	116.0	99.2	83.0	103.8	116.0	94.9	104.4	93.6	104.0
October.....	123.4	104.2	116.2	99.4	82.9	103.7	116.3	95.0	104.4	93.6	104.1
November.....	124.4	105.1	116.2	99.4	83.1	103.7	116.4	94.8	104.4	94.0	104.4
December.....	125.5	105.5	117.4	99.5	83.1	103.8	116.4	94.8	104.4	94.2	104.7
<i>1945</i>											
January.....	126.2	104.7	117.5	99.6	83.3	104.0	116.8	94.9	104.5	94.2	104.9
February.....	127.0	104.7	117.6	99.7	83.3	104.2	117.0	94.9	104.5	94.6	105.2
March.....	127.2	104.6	117.8	99.7	83.4	104.2	117.1	94.9	104.5	94.6	105.3
April.....	129.0	105.8	117.9	99.6	83.5	104.2	117.1	94.9	104.5	94.8	105.7
May.....	129.9	107.0	117.9	99.6	83.7	104.3	117.3	94.9	104.5	94.8	106.0
June.....	130.4	107.5	118.0	99.6	83.9	104.7	117.4	95.0	104.5	94.8	106.1
July.....	129.0	106.9	118.0	99.6	84.3	104.7	117.5	95.3	104.5	94.8	105.9
August.....	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	105.7

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 10 and 11 of Wholesale Prices, July to December 1943 (Bulletin No. 785).

TABLE 3.—Index Numbers of Wholesale Prices by Special Groups of Commodities

[1926=100]

Year	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0	1944					
1929	97.5	93.9	94.5	93.3	91.6	August	112.7	94.1	100.9	99.7	98.6
1932	55.1	59.3	70.3	68.3	70.2	September	112.8	94.7	100.9	99.7	98.6
1933	56.5	65.4	70.5	69.0	71.2	October	113.2	94.8	101.0	99.8	98.7
1936	79.9	75.9	82.0	80.7	79.6	November	113.8	94.8	101.1	99.9	98.8
1937	84.8	85.3	87.2	86.2	85.3	December	114.6	94.8	101.1	100.0	98.9
1938	72.0	75.4	82.2	80.6	81.7	1945					
1939	70.2	77.0	80.4	79.5	81.3	January	115.1	94.9	101.3	100.1	99.1
1940	71.9	79.1	81.6	80.8	83.0	February	115.6	95.0	101.5	100.2	99.2
1941	83.5	86.9	89.1	88.3	89.0	March	115.7	95.0	101.6	100.4	99.2
1942	100.6	92.6	98.6	97.0	95.5	April	116.8	95.0	101.8	100.5	99.3
1943	112.1	92.9	100.1	98.7	96.9	May	117.7	95.0	101.8	100.6	99.4
1944	113.2	94.1	100.8	99.6	98.5	June	118.2	95.4	101.8	100.7	99.6
						July	117.5	95.3	101.8	100.7	99.7
						August	116.3	95.5	101.8	100.9	99.9

Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during July and August 1945 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month, but are computed only to indicate the fluctuations from week to week.

TABLE 4.—Weekly Index Numbers of Wholesale Prices by Commodity Groups, July and August 1945

[1926=100]

Commodity group	Aug. 25	Aug. 18	Aug. 11	Aug. 4	July 28	July 21	July 14	July 7
All commodities	105.5	105.5	105.7	105.7	105.8	105.6	105.6	105.8
Farm products	126.7	127.0	128.3	129.1	129.7	128.5	128.2	129.4
Foods	106.6	106.3	106.9	107.0	107.4	106.5	106.2	107.2
Hides and leather products	118.5	118.5	118.5	118.5	118.5	118.5	118.5	118.5
Textile products	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
Fuel and lighting materials	85.3	85.3	85.2	84.8	84.8	84.8	84.8	84.8
Metals and metal products	104.8	104.8	104.8	104.8	104.8	104.8	104.8	104.8
Building materials	118.2	118.2	117.3	117.3	117.3	117.3	117.3	117.3
Chemicals and allied products	95.3	95.3	95.2	95.2	95.2	95.2	95.2	95.4
Housefurnishing goods	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
Miscellaneous	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
Raw materials	116.9	116.9	117.7	118.1	118.5	117.7	117.6	118.3
Semimanufactured articles	95.4	95.4	95.3	95.2	95.2	95.2	95.2	95.2
Manufactured products	102.1	102.1	102.0	101.9	101.9	101.9	101.9	102.0
All commodities other than farm products	100.8	100.8	100.7	100.6	100.6	100.6	100.6	100.6
All commodities other than farm products and foods	100.1	100.1	99.9	99.9	99.8	99.8	99.8	99.8

Price Movements During World Wars I and II

Over the 6 years from the invasion of Poland to the Japanese surrender, prices in primary markets rose 40.9 percent, compared with a 103-percent rise during the 4 years of World War I. The principal increases during this war occurred in farm products, which rose 108 percent; in foods, which rose 58 percent; and in textile products, which rose 47 percent. Other major groups showed increases ranging from 31.5 percent for building materials to 12.3 percent for metals and metal products.

Reflecting the advance for agricultural commodities, the group index for raw materials rose 74.9 percent from August 1939 to August 1945. The relative stability of other commodities is indicated by rises of approximately 28 percent for semimanufactured articles and manufactured products.

Farm products during this war rose approximately as much as during World War I. From July 1914 to November 1918 average prices for farm products increased 111 percent, compared to 108 percent since August 1939. The increase for other groups was appreciably smaller than during the First World War. Textiles, which showed the largest increase of any major group during World War I, rising 158 percent to the time of the Armistice, increased approximately 47 percent during World War II. Similarly, during World War I, chemicals rose 128 percent, but only 28 percent during the Second World War.

Among the subgroups which showed substantial increases during this war were grains, other farm products, fruits and vegetables, oils and fats, and cattle feed, all of which more than doubled in price between August 1939 and August 1945.

Increases between 50 and 100 percent occurred in subgroup indexes for livestock and poultry, dairy products, other foods, hides and skins, cotton goods, other textile products, and lumber.

On the other hand, some commodities which rose very rapidly during World War I showed little change during this war. Structural steel, which increased 161 percent during the First World War, remained unchanged in price during the past 6 years. Increases of less than 10 percent over this war period occurred for agricultural implements, farm machinery, iron and steel, and cement.

Prices during the month of August 1945 followed a pattern comparable to price movements during the late fall of 1918 when commodity prices remained approximately unchanged, or showed slight declines. Beginning in the spring of 1919, however, prices resumed their advance, rising to a peak in the spring of 1920—148 percent above the level at the beginning of the war. Comparable increases in the postwar period of World War I were shown for major groups of commodities. Textiles which were 158 percent above July 1914, at the time of the Armistice, reached a peak in 1920—252 percent above prewar levels. Hides and leather products rose after the Armistice from 89 percent above prewar levels to 192 percent above prewar levels. The only group to show a decrease in the year and a half following World War I was chemicals, which declined 2 percent.

Labor Turn-over

Labor Turn-over in Manufacturing, Mining, and Public Utilities, July 1945

FOR every 1,000 workers on factory pay rolls in July 1945, 52 quit, 6 were discharged, 16 were laid off, and 4 left to enter the armed services. The lay-off rate declined slightly over the month, but was still triple that of last year.

The rate of accessions, 56 per 1,000, was considerably below that of previous years when industry was expanding. No increases in the rate of hiring occurred in any of the major industry groups which would normally be expected to expand at this time. Presumably the shift from war to peacetime production was already extensive in July. For example, some firms which were classified in the iron and steel and transportation-equipment groups before VE-day had already shifted their major activity to the manufacture of machinery. This tendency will be even more pronounced in the following months when reconversion will be proceeding more rapidly.

Workers in both munitions and nonmunitions industries as a whole were laid off at a slightly lower rate in July than in the month following VE-day when mass cancellations became effective. However, a notable exception to this was the chemicals group, in which lay-offs rose from 13 in June to 64 per 1,000 in July. This increase in the lay-off rate was caused almost entirely by huge cut-backs in the production of small-arms ammunition, resulting in the laying off of 213 out of every 1,000 workers.

High lay-off rates were reported by two industries whose major products were not directly concerned with the war but which comprised plants engaged in some war work. On cancellation of contracts for the production of amphibious tractors, lay-offs rose from 1 to 12 per 1,000 in the agricultural machinery and tractors industry. In the seamless-hosiery industry, 10 out of every 1,000 workers were laid off when the need for parachute production ended.

A slight rise in the quit rate for all manufacturing reflected, to a large extent, increased quits in the nonmunitions group, particularly tobacco. While the rate of quits remained constant for munitions as a whole, increases did occur in the ordnance, iron and steel, electrical machinery, and transportation equipment groups.

In the metal-mining group, the military and miscellaneous separation rates continued high in July, again reflecting the return of furloughed soldiers to Army duty. The total separation rate for bituminous-coal mining increased considerably over the month, reflecting a higher rate of quits. However, the total separation rate for metal mining as well as for each of the coal-mining industries was below that for all manufacturing.

In May and June, women were laid off at a much faster rate than men in manufacturing, as the need for reducing work forces arose. However, in July, involuntary separations for women dropped considerably, while those for men continued to rise until the two were almost equal. Total separations, including quits, lay-offs, and discharges, for women remained high, 91 per 1,000, as against 71 for men.

TABLE 1.—*Monthly Labor Turn-over Rates (per 100 Employees) in Manufacturing Industries*¹

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total separation:												
1945.....	6.2	6.0	6.8	6.6	7.0	7.9	² 7.8					
1944.....	6.7	6.6	7.4	6.8	7.1	7.1	6.6	7.8	7.6	6.4	6.0	5.7
1943.....	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939.....	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:												
1945.....	4.6	4.3	5.0	4.8	4.8	5.1	² 5.2					
1944.....	4.6	4.6	5.0	4.9	5.3	5.4	5.0	6.2	6.1	5.0	4.6	4.3
1943.....	4.5	4.7	5.4	5.4	4.8	5.2	5.6	6.3	6.3	5.2	4.5	4.4
1939.....	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1945.....	.7	.7	.7	.6	.6	.7	² .6					
1944.....	.7	.6	.7	.6	.6	.7	.7	.7	.6	.6	.6	.6
1943.....	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off:³												
1945.....	.6	.7	.7	.8	1.2	1.7	² 1.6					
1944.....	.8	.8	.9	.6	.5	.5	.5	.5	.6	.5	.5	.5
1943.....	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939.....	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Military and miscellaneous:⁴												
1945.....	.3	.3	.4	.4	.4	.4	² .4					
1944.....	.6	.6	.8	.7	.7	.5	.4	.4	.3	.3	.3	.3
1943.....	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
Accession:												
1945.....	7.0	5.0	4.9	4.7	5.0	5.9	² 5.5					
1944.....	6.5	5.5	5.8	5.5	6.4	7.6	6.3	6.3	6.1	6.0	6.1	5.1
1943.....	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939.....	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

¹ Month-to-month employment changes as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a 1-week period ending nearest the middle of the month. In addition, labor turn-over data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to wage earners. The labor turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing and certain seasonal industries, such as canning and preserving, are not covered.

² Preliminary.

³ Including temporary, indeterminate, and permanent lay-offs.

⁴ Miscellaneous separations comprise not more than 0.1 in these figures. In 1939 these data were included with quits.

TABLE 2.—Monthly Labor Turn-over Rates (per 100 Employees) in Selected Groups and Industries, ¹ July 1945 ²

Industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	July	June	July	June	July	June	July	June	July	June	July	June
Manufacturing												
Munitions ¹	8.0	8.2	4.5	4.5	0.8	0.8	2.3	2.4	0.4	0.5	4.6	4.8
Nonmunitions ²	7.3	7.2	6.1	5.9	.4	.4	.5	.6	.3	.3	6.9	7.4
Ordnance.....	12.6	14.0	6.2	6.0	1.1	1.2	4.9	6.3	.4	.5	4.5	5.4
Guns, howitzers, mortars, and related equipment.....	8.1	12.3	4.0	4.5	.6	.7	3.0	6.6	.5	.5	4.6	4.6
Ammunition, except for small arms.....	13.9	14.3	7.2	6.7	1.3	1.4	5.0	5.7	.4	.5	5.0	5.9
Tanks.....	22.1	22.2	6.3	4.9	1.7	1.6	13.6	15.2	.5	.5	4.2	5.8
Sighting and fire-control equipment.....	3.8	6.1	1.9	2.9	.4	.6	1.3	2.3	.2	.3	1.5	2.3
Iron and steel and their products.....	5.9	6.0	3.9	3.5	.4	.5	1.2	1.6	.4	.4	4.4	4.3
Blast furnaces, steel works, and rolling mills.....	4.1	3.9	3.2	2.5	.2	.2	.4	.8	.3	.4	3.5	3.1
Gray-iron castings.....	7.7	7.4	6.0	5.4	.8	1.0	.3	.4	.6	.6	7.0	7.5
Malleable-iron castings.....	6.6	5.9	4.3	4.5	.4	.6	1.3	.4	.6	.4	4.6	4.3
Steel castings.....	10.0	10.5	5.6	5.7	.7	1.2	3.3	3.2	.4	.4	3.8	4.0
Cast-iron pipe and fittings.....	7.7	10.0	4.5	4.2	.8	1.1	1.4	4.1	1.0	.6	7.6	7.5
Tin cans and other tinware.....	14.6	11.6	8.8	7.9	2.9	2.5	2.1	.9	.8	.3	11.9	16.2
Wire products.....	3.6	4.4	2.7	2.3	.2	.3	.2	1.3	.5	.5	4.5	3.8
Cutlery and edge tools.....	5.1	8.6	4.1	5.0	.6	.6	.2	2.7	.2	.3	6.7	4.5
Tools (except edge tools, machine tools, files, and saws).....	6.1	5.3	4.6	4.1	.5	.6	.7	.3	.3	.3	4.9	4.3
Hardware.....	5.4	5.1	4.4	3.9	.5	.7	.2	.2	.3	.3	5.7	6.7
Stoves, oil burners, and heating equipment.....	8.8	8.2	5.9	6.0	.7	1.1	1.8	.6	.4	.5	8.1	9.5
Steam and hot-water heating apparatus and steam fittings.....	5.3	6.8	3.0	5.0	.3	.8	1.5	.5	.5	.5	3.5	4.9
Stamped and enameled ware and galvanizing.....	8.3	8.5	6.8	6.3	.7	1.1	.4	.5	.4	.6	8.0	9.7
Fabricated structural-metal products.....	12.7	7.7	4.5	4.9	.7	.8	7.0	1.5	.5	.5	7.0	6.0
Bolts, nuts, washers, and rivets.....	4.8	5.0	3.4	3.4	.7	.7	.4	.5	.3	.4	3.7	4.0
Forgings, iron and steel.....	6.3	6.3	3.9	3.7	.5	.6	1.6	1.6	.3	.4	3.1	3.2
Firearms (60 caliber and under).....	8.2	21.5	2.2	3.1	.4	.7	5.3	17.2	.3	.5	3.4	3.1
Electrical machinery.....	5.2	5.7	3.6	3.5	.5	.6	.8	1.3	.3	.3	3.8	4.2
Electrical equipment for industrial use.....	4.3	4.7	3.1	3.2	.3	.4	.6	.7	.3	.4	3.4	3.6
Radios, radio equipment, and phonographs.....	5.4	5.9	3.7	3.5	.5	.6	.9	1.5	.3	.3	3.6	4.5
Communication equipment, except radios.....	5.3	6.7	3.0	3.3	.8	1.1	1.2	1.9	.3	.4	4.2	4.0
Machinery, except electrical.....	5.0	5.3	3.3	3.4	.6	.7	.6	.7	.5	.5	3.6	4.4
Engines and turbines.....	5.6	5.8	3.7	3.5	.7	.8	.6	1.0	.6	.5	3.6	5.1
Agricultural machinery and tractors.....	7.1	4.8	4.5	3.6	.5	.5	1.2	.1	.9	.6	4.0	4.1
Machine tools.....	4.1	5.0	2.5	2.3	.5	.6	.8	1.8	.3	.3	2.4	2.5
Machine-tool accessories.....	4.3	5.4	2.8	2.9	.5	.9	.6	1.2	.4	.4	2.9	4.1
Metalworking machinery and equipment, not elsewhere classified.....	4.5	4.5	3.2	3.1	.5	.7	.3	.3	.5	.4	4.7	4.6
General industrial machinery, except pumps.....	5.0	5.5	3.5	3.6	.6	.7	.5	.8	.4	.4	3.7	4.5
Pumps and pumping equipment.....	5.4	5.2	3.9	3.7	.9	.8	.1	.1	.5	.6	6.1	5.1
Transportation equipment, except automobiles.....	10.6	10.9	5.6	5.4	1.2	1.0	3.3	3.9	.5	.6	5.6	4.9
Aircraft.....	11.2	12.4	6.2	6.2	.7	.7	3.8	4.7	.5	.8	3.7	3.5
Aircraft parts, including engines.....	6.4	8.1	3.4	3.4	.6	.6	2.0	3.7	.4	.4	3.7	3.6
Shipbuilding and repairs.....	12.9	12.2	6.6	6.3	1.8	1.7	4.0	3.6	.5	.6	7.2	6.9
Automobiles.....	7.0	8.4	4.0	4.2	.8	.9	1.8	2.9	.4	.4	5.5	5.7
Motor vehicles, bodies, and trailers.....	7.2	7.9	3.2	3.7	.6	.8	3.0	3.0	.4	.4	5.6	5.3
Motor-vehicle parts and accessories.....	6.5	8.6	4.5	4.5	.9	.9	.7	2.8	.4	.4	5.0	6.0

See footnotes at end of table.

TABLE 2.—Monthly Labor Turn-over Rates (per 100 Employees) in Selected Groups and Industries, ¹ July 1945 ²—Continued

Industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	July	June	July	June	July	June	July	June	July	June	July	June
Manufacturing—Continued												
Nonferrous metals and their products.....	46.5	8.6	4.4	5.3	0.9	0.7	0.8	2.1	0.4	0.5	5.4	5.7
Primary smelting and refining, except aluminum and magnesium.....	3.2	4.3	2.4	3.2	.2	.4	.1	.2	.5	.5	3.3	4.2
Aluminum and magnesium smelting and refining.....	(¹)	10.7	(¹)	9.0	(¹)	.4	(¹)	.9	(¹)	.4	(¹)	10.2
Rolling and drawing of copper and copper alloys.....	4.8	6.2	3.6	3.9	.4	.5	.4	1.4	.4	.4	3.5	2.5
Aluminum and magnesium products.....	(¹)	11.2	(¹)	6.0	(¹)	.8	(¹)	3.8	(¹)	.6	(¹)	5.6
Lighting equipment.....	7.7	6.7	6.3	5.4	.7	.5	.3	.4	.4	.4	9.2	7.7
Nonferrous-metal foundries, except aluminum and magnesium.....	7.2	6.8	4.8	4.9	1.1	.8	1.0	.7	.3	.4	6.2	6.2
Lumber and timber basic products.....	9.6	9.9	8.5	8.7	.3	.4	.5	.5	.3	.3	9.4	9.8
Sawmills.....	9.9	10.2	8.8	9.0	.3	.3	.5	.6	.3	.3	9.8	9.8
Planing and plywood mills.....	7.2	7.7	6.0	6.1	.4	.8	.5	.4	.3	.4	6.2	8.5
Furniture and finished lumber products.....	9.5	9.7	7.9	8.2	.5	.5	.8	.7	.3	.3	8.3	10.4
Furniture, including mattresses and bedsprings.....	8.1	9.7	7.0	8.5	.6	.6	.2	.3	.3	.3	7.9	10.5
Stone, clay, and glass products.....	5.3	5.4	4.1	4.2	.4	.5	.4	.3	.4	.4	5.4	6.1
Glass and glass products.....	5.5	5.6	3.9	4.1	.4	.7	.8	.4	.4	.5	5.4	6.2
Cement.....	4.9	4.4	4.0	3.6	.3	.3	.3	.2	.3	.3	6.9	6.8
Brick, tile, and terra cotta.....	6.3	6.0	5.2	5.1	.3	.4	.2	.1	.6	.4	6.9	7.7
Pottery and related products.....	5.2	6.4	4.3	5.3	.4	.3	.1	.5	.4	.3	6.0	6.2
Textile-mill products.....	6.2	5.8	5.3	4.9	.4	.4	.3	.2	.2	.3	5.7	6.1
Cotton.....	7.0	6.8	6.2	5.9	.5	.5	.1	.1	.2	.3	6.9	7.1
Silk and rayon goods.....	5.9	5.9	5.0	4.9	.5	.5	.2	.2	.2	.3	6.0	6.9
Woolen and worsted, except dyeing and finishing.....	4.6	3.8	3.6	3.0	.4	.3	.4	.3	.2	.2	3.4	4.1
Hosiery, full-fashioned.....	4.7	3.3	3.8	2.8	.1	.2	.7	.2	.1	.1	3.5	3.7
Hosiery, seamless.....	6.8	5.7	5.3	5.3	.3	.2	1.0	.1	.2	.1	4.9	6.2
Knitted underwear.....	5.6	5.1	4.9	4.4	.4	.3	.2	.3	.1	.1	5.1	6.1
Dyeing and finishing textiles, including woolen and worsted.....	3.9	4.0	2.9	2.4	.5	.5	.2	.4	.3	.7	3.7	4.0
Apparel and other finished textile products.....	6.0	5.4	5.3	4.5	.2	.2	.4	.6	.1	.1	5.1	5.6
Men's and boys' suits, coats, and overcoats.....	4.9	3.7	4.2	3.3	.1	.1	.5	.2	.1	.1	3.4	4.3
Men's and boys' furnishings, work clothing, and allied garments.....	6.3	4.9	5.5	4.5	.2	.2	.5	.1	.1	.1	5.3	5.5
Leather and leather products.....	5.4	6.2	4.4	4.9	.3	.4	.4	.7	.3	.2	7.1	6.2
Leather.....	4.9	4.4	3.7	3.7	.2	.3	.1	.1	.2	.3	3.5	5.8
Boots and shoes.....	5.6	6.4	4.5	5.1	.3	.4	.5	.7	.3	.2	7.8	6.3
Food and kindred products.....	9.4	9.2	7.9	7.9	.6	.6	.5	.4	.4	.3	9.1	10.0
Meat products.....	7.5	7.5	6.3	6.4	.5	.5	.3	.2	.4	.4	7.0	9.1
Grain-mill products.....	12.7	11.2	10.9	9.6	1.0	.8	.2	.4	.6	.4	16.2	13.2
Tobacco manufactures.....	8.1	6.6	7.4	5.9	.4	.5	.2	.1	.1	.1	7.6	7.4
Paper and allied products.....	6.1	7.0	4.9	5.8	.5	.5	.3	.3	.4	.4	6.4	8.0
Paper and pulp.....	4.9	6.5	3.8	6.2	.4	.5	.2	.3	.5	.5	5.2	7.1
Paper boxes.....	8.8	8.3	7.5	7.1	.6	.6	.3	.2	.4	.4	8.7	10.2
Chemical and allied products.....	12.1	7.2	4.6	4.8	.8	.7	6.4	1.3	.3	.4	4.0	5.2
Paints, varnishes, and colors.....	4.0	3.6	3.1	2.7	.5	.5	.1	.1	.3	.3	4.8	5.1
Rayon and allied products.....	4.0	4.7	3.3	3.8	.3	.3	.2	.1	.2	.5	4.5	6.2
Industrial chemicals, except explosives.....	4.9	4.5	3.8	3.4	.6	.5	.2	.2	.3	.4	5.2	5.6
Explosives.....	9.8	8.9	6.9	5.7	1.5	1.1	1.1	1.7	.3	.4	5.2	3.8
Small-arms ammunition.....	27.5	12.1	5.1	7.1	.8	.9	21.3	3.8	.3	.3	1.7	5.0

See footnotes at end of table.

TABLE 2.—Monthly Labor Turn-over Rates (per 100 Employees) in Selected Groups and Industries, ¹ July 1945 ²—Continued

Industry	Total separation		Quit		Discharge		Lay-off		Military and miscellaneous		Total accession	
	July	June	July	June	July	June	July	June	July	June	July	June
Manufacturing—Continued												
Products of petroleum and coal.....	3.2	3.3	2.4	2.4	0.4	0.3	0.1	0.2	0.3	0.4	4.1	4.0
Petroleum refining.....	3.1	3.2	2.3	2.3	.3	.3	.2	.2	.3	.4	4.0	3.9
Rubber products.....	6.3	6.1	4.6	4.7	.5	.5	.8	.5	.4	.4	5.1	5.7
Rubber tires and inner tubes.....	6.5	5.8	4.6	4.5	.4	.5	1.0	.4	.5	.4	4.9	5.0
Rubber footwear and related products.....	6.6	7.4	6.1	6.4	.3	.5	(⁶)	.1	.2	(⁶)	6.4	8.0
Miscellaneous rubber industries.....	5.7	6.3	4.3	4.7	.6	.6	.5	.7	.3	.3	5.3	6.5
Miscellaneous industries.....	5.4	5.8	3.5	3.1	.4	.5	1.1	1.8	.4	.4	4.3	3.6
Nonmanufacturing												
Metal mining.....	5.5	5.8	4.3	4.5	.4	.4	.1	.1	.7	.8	3.7	4.3
Iron ore.....	2.9	2.5	2.0	1.9	.2	.2	.1	(⁶)	.6	.4	2.2	2.6
Copper ore.....	7.2	7.8	5.9	6.2	.3	.4	.2	.1	.8	1.1	4.0	4.3
Lead and zinc ore.....	5.1	7.2	4.1	5.8	.5	.4	(⁶)	.1	.5	.9	3.9	5.4
Metal mining, not elsewhere classified, including aluminum ore..	13.7	7.1	11.3	5.3	1.2	.8	(⁶)	.1	1.2	.9	11.7	7.1
Coal mining:												
Anthracite.....	1.7	1.5	1.2	1.1	(⁶)	(⁶)	.3	.3	.2	.1	1.2	1.5
Bituminous-coal.....	4.6	3.6	3.8	3.1	.3	.2	.3	.1	.2	.2	3.9	3.2
Public utilities:												
Telephone.....	3.2	3.2	2.9	2.9	.1	.1	.1	.1	.1	.1	4.8	5.5
Telegraph.....	(⁶)	3.7	(⁶)	3.4	(⁶)	.1	(⁶)	.1	(⁶)	.1	(⁶)	4.0

¹ Since January 1943, manufacturing firms reporting labor turn-over have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample, comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products.

² Preliminary figures.

³ The munitions division, which replaces the selected war industries group, includes the following major industry groups: Ordnance; iron and steel; electrical machinery; machinery, except electrical; automobiles; transportation equipment, except automobiles; nonferrous metals; chemicals; products of petroleum and coal; rubber. The nonmunitions division includes lumber; furniture and finished lumber products; stone, clay, and glass; textile-mill products; apparel and finished textile products; leather; food and kindred products; tobacco; paper and pulp; miscellaneous industries. Comparable data for 1943 and 1944 are presented in the July issue of the Monthly Labor Review.

⁴ July figures based on incomplete returns.

⁵ Not available.

⁶ Less than 0.05.

TABLE 3.—*Monthly Labor Turn-over Rates (per 100 Employees)¹ for Men and Women in Selected Industries Engaged in War Production, July 1945²*

Industry	Total separation		Quit		Total accession	
	Men	Women	Men	Women	Men	Women
All manufacturing.....	7.1	9.1	4.6	6.4	5.3	6.1
Ordnance.....	10.6	16.2	5.2	8.1	4.1	5.3
Guns, howitzers, mortars, and related equipment.....	6.8	13.0	3.2	6.9	4.1	6.3
Ammunition, except for small arms.....	11.9	16.9	6.2	8.6	4.5	5.6
Tanks.....	17.8	41.1	5.1	11.5	3.9	5.1
Sighting and fire-control equipment.....	3.1	5.2	1.2	3.3	1.3	2.0
Iron and steel and their products.....	5.7	9.7	3.8	6.1	4.5	6.4
Blast furnaces, steel works, and rolling mills.....	4.1	6.4	3.3	4.9	4.0	5.0
Gray-iron castings.....	7.9	5.5	6.2	3.2	6.9	9.0
Malleable-iron castings.....	6.7	6.4	4.3	4.1	4.4	6.7
Steel castings.....	10.0	9.8	5.6	4.7	3.9	2.3
Cast-iron pipe and fittings.....	7.5	12.3	4.5	4.5	7.8	6.0
Firearms (50 caliber and under).....	9.0	16.0	2.2	2.7	4.4	2.4
Electrical machinery.....	3.6	6.9	2.5	4.9	2.8	4.9
Electrical equipment for industrial use.....	2.9	6.7	1.9	5.3	2.4	5.2
Radios, radio equipment, and phonographs.....	3.8	6.7	2.7	4.5	2.5	4.5
Communication equipment, except radios.....	4.1	6.5	2.2	3.8	3.3	5.1
Machinery, except electrical.....	4.4	6.6	2.9	4.8	3.2	4.9
Engines and turbines.....	4.9	7.5	3.1	5.6	3.1	5.3
Machine tools.....	3.8	5.9	2.2	4.0	2.2	4.2
Machine-tool accessories.....	4.0	5.6	2.5	4.1	2.8	3.1
Metalworking machinery and equipment, not elsewhere classified.....	4.1	6.5	2.9	4.8	4.2	7.0
General industrial machinery, except pumps.....	4.3	7.0	2.8	5.4	3.2	4.8
Pumps and pumping equipment.....	4.5	8.1	3.3	5.8	4.9	9.5
Transportation equipment, except automobiles.....	10.3	12.8	5.3	7.2	5.7	5.7
Aircraft.....	10.6	11.9	5.2	7.7	3.3	4.3
Aircraft parts, including engines.....	5.2	9.6	2.8	4.9	3.2	5.1
Shipbuilding and repairs.....	13.0	17.7	6.6	9.3	7.7	8.0
Nonferrous metals and their products.....	5.9	9.4	4.0	6.2	5.0	7.1
Primary smelting and refining, except aluminum and magnesium.....	2.9	6.0	2.2	5.3	3.2	5.5
Aluminum and magnesium smelting and refining.....	(3)	(3)	(3)	(3)	(3)	(3)
Rolling and drawing of copper and copper alloys.....	4.5	7.9	3.4	5.2	3.4	4.3
Aluminum and magnesium products.....	(3)	(3)	(3)	(3)	(3)	(3)
Nonferrous-metal foundries, except aluminum and magnesium.....	6.3	10.2	4.1	7.0	5.3	9.5
Chemicals and allied products.....	9.5	17.0	4.0	5.9	3.8	4.5
Industrial chemicals, except explosives.....	4.8	5.7	3.7	4.6	4.9	6.3
Explosives.....	9.2	11.3	6.2	8.7	4.5	6.8
Small-arms ammunition.....	23.7	31.7	4.3	6.0	1.5	1.9

¹ These figures are presented to show comparative turn-over rates and should not be used to estimate employment.

² These figures are based on a slightly smaller sample than that for all employees, inasmuch as some firms do not report separate data for women.

³ Not available.

Building Operations

Building Construction in Urban Areas, August 1945

THE value of urban building construction started in August 1945 was practically the same as in July—167 and 169 million dollars, respectively. The August 1945 figure represents a gain of 93 percent over August 1944. An increase of 19 million dollars in the value of non-Federally financed work practically offset the decrease of 21 million in the value of Federal contract awards.

The volume of both new residential and new nonresidential building was more than double that started during August, 1944, and additions, alterations, and repairs showed a gain over the year of more than 65 percent.

The 157 million dollars worth of non-Federal building construction started, represented a 134-percent increase over the August 1944 level. Analysis of this percentage increase revealed a 134-percent rise in new residential work, a 237-percent increase in new nonresidential building, and a 65-percent advance in additions, alterations, and repairs. On the other hand, new Federal residential building declined 64 percent and new nonresidential 51 percent.

TABLE 1.—Summary of Building Construction in All Urban Areas, August 1945

Class of construction	Number of buildings			Value		
	August 1945	Percent of change from—		August 1945 (in thousands of dollars)	Percent of change from—	
		July 1945	August 1944		July 1945	August 1944
All building construction.....	71,245	-5.0	+26.7	166,884	-1.4	+93.4
New residential.....	11,846	-16.0	+58.0	55,696	-7.7	+101.0
New nonresidential.....	12,745	+4.4	+106.6	66,516	+3.0	+110.3
Additions, alterations, and repairs.....	46,654	-4.2	+9.6	44,672	+8	+65.8

The 12,903 new family dwelling units placed under construction in August 1945 may be compared with 15,913 in July 1945 and 8,738 in August 1944. Units built for private owners accounted for nearly all of the units started in August of this year as compared with four-fifths a year ago.

TABLE 2.—*Number and Value of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, August 1945*

Source of funds and type of dwelling	Number of dwelling units			Value		
	August 1945	Percent of change from—		August 1945 (in thousands of dollars)	Percent of change from—	
		July 1945	August 1944		July 1945	August 1944
All dwellings.....	12,903	-18.9	+47.7	53,848	-10.0	+96.4
Privately financed.....	12,759	-1.5	+75.4	53,310	+3.2	+133.3
1-family.....	11,059	+5.7	+103.2	47,279	+8.6	+176.9
2-family ¹	617	-21.1	-5.8	2,106	-22.2	-13.2
Multifamily ²	1,083	-36.7	-7.8	3,925	-28.0	+17.0
Federally financed.....	144	-95.1	-90.2	538	-93.4	-88.2

¹ Includes 1- and 2-family dwellings with stores.² Includes multifamily dwellings with stores.*Comparison of First 8 Months of 1944 and 1945*

During the first 8 months of this year 996 million dollars worth of building construction was begun in urban areas, a third more than the aggregate for the same months of 1944.

TABLE 3.—*Value of Building Construction Started in All Urban Areas by Class of Construction, First 8 Months of 1944 and 1945*

Class of construction	(Value in millions of dollars)								
	Total			Federal			Other than Federal		
	First 8 months of—		Per- cent of change	First 8 months of—		Per- cent of change	First 8 months of—		Per- cent of change
	1945	1944		1945	1944		1945	1944	
All construction.....	996	748	+33.2	225	228	—1.3	771	520	+48.3
New residential.....	319	256	+24.6	30	38	—21.1	289	218	+32.6
New nonresidential.....	392	291	+34.7	172	181	—5.0	220	110	+100.0
Additions, alterations, and repairs.....	285	201	+41.8	23	9	+155.6	262	192	+36.5

TABLE 4.—*Number and Value of New Dwelling Units in All Urban Areas, by Source of Funds and Type of Dwelling, First 8 Months of 1944 and 1945*

Source of funds and type of dwelling	Number of dwelling units			Value (in thousands of dollars)		
	First 8 months of—		Percent of change	First 8 months of—		Percent of change
	1945	1944		1945	1944	
All dwellings.....	86,762	83,110	+4.4	313,195	252,849	+23.9
Privately financed.....	76,768	68,733	+11.7	286,038	216,287	+32.2
1-family.....	63,284	52,212	+21.2	244,382	164,602	+48.5
2-family ¹	5,227	7,418	-29.5	16,540	25,117	-34.1
Multifamily ²	8,257	9,103	-9.3	25,116	26,568	-5.5
Federal.....	9,994	14,377	-30.5	27,157	36,562	-25.7

¹ Includes 1- and 2-family dwellings with stores.² Includes multifamily dwellings with stores.

Construction From Public Funds, August 1945

The value of contracts awarded and force-account work started during July and August 1945 and August 1944 on all construction projects, excluding shipbuilding, financed wholly or partially from Federal funds and reported to the Bureau of Labor Statistics, is shown in table 5. This table includes construction both inside and outside the corporate limits of cities.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects¹ Financed From Federal Funds, August 1945*

Source of funds	Value (in thousands of dollars) of contracts awarded and force-account work started		
	August 1945 ²	July 1944 ³	August 1944 ³
All Federal sources.....	52,219	101,068	103,466
War public works ⁴	804	4,361	7,054
Regular Federal appropriations ¹	49,529	87,354	92,163
Federal Public Housing Authority.....	1,886	9,353	4,249

¹ Excludes the following amounts (in thousands of dollars) for ship construction: August 1945, 14,400; July 1945, 0; August 1944, 427,291.

² Preliminary; subject to revision.

³ Revised.

⁴ Public works financed under the Lanham Act, to provide facilities in crowded war districts.

Coverage and Method

Figures on building construction in this report cover the entire urban area of the United States which by Census definition includes all incorporated places with a 1940 population of 2,500 or more and, by special rule, a small number of unincorporated civil divisions. Valuation figures, the basis for statements concerning value, are derived from estimates of construction cost made by prospective private builders when applying for permits to build, and the value of contracts awarded by Federal and State governments. No land costs are included. Unless otherwise indicated, only building construction within the corporate limits of cities in urban areas is included in the tabulations.

Reports of building permits which were received in August 1945 for cities containing between 80 and 85 percent of the urban population of the country provide the basis for estimating the total number of buildings and dwelling units and the valuation of private urban building construction. Similar data for Federally financed urban building construction are compiled directly from notifications of construction contracts awarded, as furnished by Federal agencies.

The contracts awarded and force-account work started on Federally financed building construction inside the corporate limits of cities in urban areas were valued at \$9,756,000 in August 1945, \$30,838,000 in July 1945, and \$19,219,000 in August 1944.

Trend of Employment, Earnings, and Hours

Summary of Employment Reports for August 1945

BY MID-AUGUST 1945, when Japan surrendered, a total of 36,844,000 persons were employed in nonagricultural establishments. This net total was 361,000 less than in the previous month and 1,900,000 less than a year ago.

Manufacturing employment declined by 323,000 from mid-July to mid-August. Cut-backs immediately after the surrender caused an additional decline of about 1½ million factory employees within 2 weeks, making a total decline of 1,600,000 for the month from August 1 to September 1.

Of the major industrial divisions only contract construction gained substantially in employment from July to August. Thus, the trends of the last year continued up to VJ-day, for throughout this period there had been shrinkage rather than increase in nonmunitions as well as munitions employment.

Industrial and Business Employment

Employment of production workers in factories (as distinct from total factory employment) decreased by ¼ million in the month preceding VJ-day and by 1¼ million in the 2 weeks immediately after. The greater part of this decline occurred in the first days after VJ-day; nevertheless, the curtailment in the last week of August was as great as it had been in a whole month before VJ-day. Cut-backs and contract cancellations brought employment in the munitions industries down to 6,296,000 production workers by mid-August as compared with 6,592,000 a month earlier, and to 5,600,000 by September 1. Approximately 40 percent of the plants in these industries, however, reported little or no reduction of employment from August 1 to September 1.

All of the munitions groups of industries shared in these declines. The largest, however, were in the transportation equipment group, which lost nearly 100,000 production workers from mid-July to mid-August. A special report showed that the two most important industries of this group, aircraft (including engines and parts) and shipbuilding, lost 55 percent and 20 percent, respectively, during the month ending September 1.

The iron and steel group reduced employment by 52,000 workers from July to August, chiefly in plants engaged in ordnance manufacture. Within this group, ordnance plants alone reported a much sharper drop after VJ-day. The automobile industry was lower in August than in July by 43,000 workers, largely because of reconversion from the manufacture of war products. Further cut-backs in

the production of explosives and small-arms ammunition were primarily responsible for the decline of 36,000 workers in the chemicals group.

In the nonmunitions industries employment increased from July to August by about 20,000 workers to a level of 5,355,000. Seasonal increases of 22,000 in food, owing primarily to the canning industry, and of 11,000 in apparel more than offset a 9,000 decrease in the miscellaneous group, which includes scientific instruments. Relatively slight declines which occurred in these nonmunitions industries in the last half of August were, for the most part, due to cancellation of contracts for war goods (uniforms, for instance) produced in them. In these 2 weeks, only about one-fourth of the plants reported reduced employment. By September 1, the nonmunitions industries employed 5.2 million production workers.

Employment in bituminous-coal mines was slightly lower in August than in July but was about 10 percent below that of a year earlier. Metal mines also employed somewhat fewer workers in August, but at a level 14 percent below August 1944.

The trends from mid-July to mid-August were obtained from the regular monthly survey of employment by the Bureau of Labor Statistics. The later trends, from mid-August to September 1, were obtained from a special telegraphic survey of a small sample of establishments.

TABLE 1.—Estimated Number of Production Workers and Indexes of Production-Worker Employment in Manufacturing Industries, by Major Industry Group¹

Industry group	Estimated number of production workers (in thousands)				Production-worker indexes (1939=100)	
	August 1945 ²	July 1945	June 1945	August 1944	August 1945 ²	July 1945
All manufacturing.....	11,651	11,928	12,326	13,758	142.2	145.6
Durable goods.....	6,521	6,782	7,109	8,238	180.6	187.8
Nondurable goods.....	5,130	5,146	5,217	5,520	112.0	112.3
<i>Durable goods</i>						
Iron and steel and their products.....	1,451	1,503	1,577	1,703	146.3	151.6
Electrical machinery.....	610	636	668	745	235.2	245.6
Machinery, except electrical.....	1,040	1,069	1,106	1,204	196.8	202.2
Transportation equipment, except automobiles.....	1,429	1,526	1,628	2,273	900.1	961.1
Automobiles.....	539	582	621	709	134.1	144.6
Nonferrous metals and their products.....	360	371	396	421	157.2	162.0
Lumber and timber basic products.....	454	453	458	500	108.0	107.9
Furniture and finished lumber products.....	319	321	329	348	97.2	98.0
Stone, clay, and glass products.....	319	321	326	335	108.7	109.3
<i>Nondurable goods</i>						
Textile-mill products and other fiber manufactures.....	1,031	1,034	1,055	1,098	90.2	90.4
Apparel and other finished textile products.....	772	761	807	873	97.8	96.4
Leather and leather products.....	307	307	312	316	88.6	88.5
Food.....	1,076	1,054	997	1,177	125.9	123.3
Tobacco manufactures.....	77	78	80	82	81.2	83.2
Paper and allied products.....	303	302	308	315	114.1	113.7
Printing, publishing, and allied industries.....	318	317	320	324	97.1	96.8
Chemicals and allied products.....	551	587	612	589	191.0	203.7
Products of petroleum and coal.....	136	135	134	135	128.1	127.4
Rubber products.....	180	183	188	195	149.2	151.1
Miscellaneous industries.....	379	388	404	416	155.0	158.5

¹ The estimates and indexes presented in this table have been adjusted to levels indicated by the final 1943 data made available by the Bureau of Employment Security of the Federal Security Agency. Data for 15 major groups are not comparable with data published in mimeographed releases dated prior to September 1945 or in the October 1945 issue of the Monthly Labor Review. Comparable data from January 1939 are available upon request. Five major groups—Furniture and finished lumber products, Stone, clay and glass products, Tobacco manufactures, Chemicals and allied products, and Products of petroleum and coal—needed no further adjustment and are therefore comparable with the data previously published.

² Preliminary.

Public Employment

As of the last reporting date before the end of World War II (August 1, 1945), Federal employment reached a peak of 3,800,000. Of these, approximately 2,900,000 were in the 48 States and the District of Columbia, and 900,000 in Territories and possessions and in foreign countries.

In the entire 4 years of the war, Federal employment expanded to four times its size in August 1939 when it was just under a million. Employment in war agencies rose to 13 times their prewar level during this period, while other agencies, in spite of changes in the character and volume of their work to meet war demands, expanded by only one-fifth.

Shifts in the importance of the peacetime agencies occurred, however, which are obscured by their relatively stable total. For example, the Post Office Department showed increased employment of 66,000 over the war period; Treasury, 35,000; Commerce Department and Veterans Administration, 30,000 each; Justice Department, 17,000; and the Federal Security Agency, 10,000. On the other hand, employment of the Federal Works Agency dropped by 32,000 and that of Agriculture by 15,000. In relative terms, the Civil Service Commission and Commerce Departments showed the highest gains, each expanding to $3\frac{1}{2}$ times their prewar size. The General Accounting Office and the Justice Department almost trebled in size, and the State Department and Veterans Administration very nearly doubled their employment. The new levels of the Federal Works Agency and Agriculture Department represented two-fifths and over four-fifths of their former respective employment levels.

The foregoing shifts do not take account of the abolition of the Federal Loan Agency (which had 20,000 employees in 1939), nor of the creation of the Reconstruction Finance Corporation and National Housing Agency (with 13,000 and 15,000, respectively, in 1945) during the 4-year period.

The drop of 12,000 employees in peacetime agencies from July to August 1945 was the result of increases mainly in the Post Office Department (5,000), Agriculture (7,000), and Veterans Administration (3,000), offset by decreases in the Federal Security Agency (3,000) and Commerce Department (27,000). The latter decline marked the closing of the field operations in connection with the agricultural census, and brought employment for the Department within 9,000 of its February 1945 levels before the census was started.

Although many Federal agencies went on a 40-hour workweek the last week in August, the August 1945 pay rolls, shown in tables 2 and 3, include only the pay periods ending during the month and do not include that week. The drop in Federal pay rolls of 22 million dollars from July to August 1945, therefore, was not in any way attributable to the shorter workweek. Instead, it resulted mainly from declines in employment within continental United States.

The large majority of Federal employees outside continental United States consists of laborers who are paid at rates consistent with the economy of the foreign country to which they are native. These rates usually are low as compared to rates paid within continental United States. Total Federal pay rolls, therefore, generally parallel the trend in continental employment and not the trend in the total.

Source of data.—Data for the Federal executive service are reported through the Civil Service Commission, whereas data for the legislative and judicial services and Government corporations are reported to the Bureau of Labor Statistics. Force-account employment is also included in construction employment (table 5), and navy-yard employment is also included in employment on shipbuilding and repair projects (table 4). The revised pay-roll series showing monthly figures from 1943 to date is available upon request.

TABLE 2.—*Employment and Pay Rolls for Regular Federal Services and for Government Corporations in Selected Months*

Year and month	Total	Executive ¹	Legislative	Judicial	Government corporations ²
Employment					
August 1939.....	982, 146	948, 951	5, 432	2, 192	25, 571
August 1940.....	1, 092, 982	1, 058, 075	5, 985	2, 535	26, 387
August 1941.....	1, 496, 669	1, 457, 169	6, 142	2, 637	30, 721
August 1942.....	2, 495, 609	2, 453, 455	6, 526	2, 653	32, 975
August 1943.....	3, 330, 416	3, 286, 039	6, 091	2, 651	35, 635
August 1944.....	3, 388, 274	3, 344, 794	6, 212	2, 653	34, 615
April 1945.....	3, 613, 169	3, 570, 080	6, 346	2, 626	34, 117
May 1945 ³	3, 672, 391	3, 629, 328	6, 361	2, 617	34, 085
June 1945 ³	3, 718, 860	3, 675, 768	6, 349	2, 613	34, 130
July 1945 ³	3, 806, 005	3, 762, 107	6, 444	2, 706	34, 748
August 1945 ⁴	3, 827, 472	3, 783, 974	6, 412	2, 689	34, 397
Pay rolls (in thousands) ⁵					
August 1943.....	\$656, 047	\$648, 305	\$1, 520	\$777	\$5, 447
August 1944.....	693, 369	685, 550	1, 527	777	5, 515
April 1945 ³	687, 700	679, 932	1, 627	782	5, 359
May 1945 ³	701, 274	693, 471	1, 635	777	5, 391
June 1945 ³	695, 763	687, 809	1, 657	816	5, 481
July 1945 ³	718, 750	710, 494	1, 771	879	5, 606
August 1945 ⁴	696, 342	688, 062	1, 762	868	5, 650

¹ Includes employees in United States navy yards who are also included under shipbuilding (table 4) and employees on force-account construction who are also included under construction projects (table 5). Includes employees stationed outside continental United States.

² Data are for employees of the Panama Railroad Company, the Federal Reserve banks, and banks of the Farm Credit Administration, who are paid out of operating revenues and not out of Federal appropriations. Data for other Government corporations are included under the executive service.

³ Revised.

⁴ Preliminary.

⁵ Pay rolls are from the revised series. Monthly figures are available upon request for the period from January 1943 to date. Revised data for 1939-42 will be available shortly. Data are for all pay periods ending within the calendar month.

TABLE 3.—*Employment and Pay Rolls for the Executive Branch of the Federal Government, by War and Other Agencies, in Selected Months*¹

Year and month	Total	War agencies ¹			Other agencies		
		All areas	Conti- nental United States	Outside conti- nental United States ²	All areas	Conti- nental United States	Outside conti- nental United States ²
Employment							
August 1939.....	948,951	212,260	181,704	30,556	736,691	727,030	9,661
August 1940.....	1,058,075	295,161	244,792	50,369	762,914	751,076	11,838
August 1941.....	1,457,169	640,364	555,567	84,797	816,805	803,422	13,383
August 1942.....	2,453,455	1,587,202	1,396,637	190,565	866,253	851,912	14,341
August 1943.....	3,286,039	2,465,767	2,160,652	305,115	820,272	804,206	16,066
August 1944.....	3,344,794	2,500,326	2,112,536	387,890	844,468	828,713	15,755
April 1945.....	3,570,080	2,689,936	2,056,697	633,239	880,144	863,656	16,488
May 1945 ⁴	3,629,328	2,736,802	2,038,624	698,178	892,526	876,011	16,515
June 1945 ⁴	3,675,768	2,781,032	2,019,457	761,575	894,736	878,146	16,590
July 1945 ⁴	3,762,107	2,848,405	2,020,240	828,165	913,702	895,180	18,522
August 1945 ⁴	3,783,974	2,882,729	2,014,273	868,456	901,245	882,239	19,006
Pay rolls (in thousands) ⁵							
August 1943.....	\$648,305	\$485,782	\$438,843	\$46,939	\$162,523	\$159,018	\$3,505
August 1944.....	685,550	515,484	462,962	52,522	170,066	166,670	3,396
April 1945 ⁴	679,932	512,058	455,785	56,273	167,874	164,224	3,650
May 1945 ⁴	693,471	523,589	463,793	59,796	169,882	166,104	3,778
June 1945 ⁴	687,809	515,893	451,879	64,014	171,916	167,820	4,096
July 1945 ⁴	710,494	537,016	470,818	66,198	173,478	169,275	4,203
August 1945 ⁴	688,062	514,689	449,348	65,341	173,373	168,834	4,535

¹ Includes employees in United States navy yards who are also included under shipbuilding (table 4) and employees on force-account construction who are also included under construction projects (table 5).

² Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and the emergency war agencies.

³ Includes Alaska and the Panama Canal Zone.

⁴ Revised.

⁵ Preliminary.

⁶ Pay rolls are from the revised series. Monthly figures are available upon request for the period from January 1943 to date. Revised data for 1939-42 will be available shortly. Data are for all pay periods ending within the calendar month.

Employment in Shipyards

From July 15 to August 15, employment in shipyards declined 71,000, leaving 1,020,500 workers employed in private shipyards and United States Navy yards. Although greater than the average monthly decline for the first 7 months of 1945, the drop in employment from July 15 to August 15 did not reflect the drastic cuts in employment that were made by most shipyards immediately following VJ-day.

On the basis of a special study made at the end of August to measure the effects of cut-backs caused by the surrender of Japan, it was found that shipyard employment dropped 206,000 from August 1 to August 31, leaving 876,000 workers employed as of August 31. This was 144,500 fewer workers than were employed August 15. The total of 876,000 workers at the end of August was 846,500 fewer workers than were employed during the peak month of the industry, December 1943, and 571,600 fewer than were employed during January 1945.

A second special study made during September showed that employment declined by an additional 154,400 workers during September, leaving 721,600 workers employed in all shipyards as of September 30.

From July 15 to August 15, the greatest numerical loss was in Atlantic coast shipyards, where employment declined 33,800. Pacific coast shipyards were second with a loss of 20,100 workers. Great Lakes shipyards again had the greatest percentage decrease, 21.4 percent, while Inland yards were second with a decrease of 17.9 percent.

Pay rolls of shipyard workers amounted to \$293,252,000 for August, which was \$23,865,000 less than for July and \$95,848,000 less than for August 1944.

Data on employment and pay rolls are received monthly by the Bureau of Labor Statistics directly from private shipyards. Data for United States navy yards are received monthly from the Navy Department. Employees in the navy yards are also included in data for the Federal executive service (tables 2 and 3).

TABLE 4.—Total Employment and Pay Rolls in United States Navy Yards and Private Shipyards, by Shipbuilding Region, August 1945

Shipbuilding region	Employment (in thousands)			Pay rolls (in thousands)		
	August 1945 ¹	July 1945	August 1944	August 1945 ¹	July 1945	August 1944
All regions.....	1,020.5	1,091.5	1,527.9	\$293,252	\$317,117	\$389,100
United States navy yards ²	298.9	316.7	323.8	90,034	95,365	51,946
Private shipyards.....	721.6	774.8	1,204.1	203,218	221,752	337,154
North Atlantic.....	392.0	419.1	550.9	113,728	123,445	(³)
South Atlantic.....	96.9	103.6	134.9	30,859	31,287	(³)
Gulf.....	122.0	130.6	207.5	31,838	35,254	(³)
Pacific.....	375.6	395.7	513.4	107,998	114,610	(³)
Great Lakes.....	19.8	25.2	58.9	5,498	7,814	(³)
Inland.....	14.2	17.3	62.3	3,331	4,707	(³)

¹ Preliminary.

² Includes all navy yards constructing or repairing ships, including the Curtis Bay (Maryland) Coast Guard yard. Data are also included in the Federal executive service (tables 2 and 3).

³ Break-down not available.

Construction Employment

Construction employment in the United States rose to 1,095,600 in August, nearly a quarter of a million above August of last year and over 50,000 more than in July 1945. The pronounced employment gain is the result of increased activity on all types of non-Federal construction. Federal construction employment was 200,000 in August 1945, a drop of 28,000 workers from August 1944 and 7,000 from July 1945.

Employment at the site of non-Federal jobs made up 79 percent of all site employment in August of this year as compared with 68 percent in 1944, 40 percent in 1943, and 30 percent in 1942. In 1939, 1940, and 1941 non-Federal construction employment on this type of work made up 76, 84, and 70 percent of total on-site employment.

The most pronounced employment gain over the year both numerically and relatively occurred in the field of non-Federal non-residential building construction, which rose from 95,200 in August of last year to 251,700 this August, an increase of 26 percent. Over the same period, employment on private residential work advanced from 107,100 to 170,900, while private public-utility projects provided employment for 130,500 in August 1945 as compared with 95,400 in August 1944.

Source of data.—For construction projects financed wholly or partially from Federal funds, the Bureau of Labor Statistics receives monthly reports on employment and pay rolls at the construction site directly from the contractors or from the Federal agency sponsoring the project. Force-account employees hired directly by the Federal Government are also included in tables 2 and 3 under Federal executive service.

Estimates of employment on non-Federal construction projects (except State roads) are obtained by converting the value of work started (compiled from reports on building permits issued, priorities granted, and from certain special reports) into monthly expenditures and employment by means of factors which have been developed from special studies and adjusted to current conditions. For State roads projects, data represent estimates of the Public Roads Administration.

TABLE 5.—*Estimated Employment and Pay Rolls on Construction Within Continental United States, August 1945*

Type of project	Employment (in thousands)			Pay rolls (in thousands)		
	August 1945 ¹	July 1945	August 1944	August 1945 ¹	July 1945	August 1944
New construction, total ²	1,095.6	1,043.3	875.1	(3)	(3)	(3)
At the construction site.....	953.8	903.1	720.7	(3)	(3)	(3)
Federal projects ⁴	200.0	206.8	228.1	\$46,196	\$48,188	\$48,687
Airports.....	9.5	9.9	16.6	1,746	1,818	3,158
Buildings.....	141.9	149.9	140.2	34,680	36,759	31,264
Residential.....	9.3	10.0	20.5	2,127	2,354	4,591
Nonresidential ⁵	132.6	139.9	119.7	32,553	34,405	26,673
Electrification.....	1.0	.8	.5	225	124	87
Reclamation.....	6.3	5.3	13.7	1,386	1,205	3,151
River, harbor, and flood control.....	14.8	13.1	21.6	2,800	2,609	4,173
Streets and highways.....	9.8	10.0	17.0	1,882	1,911	3,403
Water and sewer systems.....	3.2	3.2	6.0	559	566	1,004
Miscellaneous.....	13.5	14.6	12.5	2,918	3,196	2,447
Non-Federal projects.....	753.8	696.3	492.6	(3)	(3)	(3)
Buildings.....	422.6	382.2	202.3	102,269	92,402	46,731
Residential.....	170.9	159.4	107.1	(3)	(3)	(3)
Nonresidential.....	251.7	222.8	95.2	(3)	(3)	(3)
Farm dwellings and service buildings.....	142.2	144.2	141.9	(3)	(3)	(3)
Public utilities.....	130.5	118.9	95.4	(3)	(3)	(3)
Streets and highways.....	35.7	32.0	38.1	(3)	(3)	(3)
State.....	16.5	14.7	19.5	(3)	(3)	(3)
County and municipal.....	19.2	17.3	18.6	(3)	(3)	(3)
Miscellaneous.....	22.8	19.0	14.9	(3)	(3)	(3)
Other ⁶	141.8	140.2	154.4	(3)	(3)	(3)
Maintenance of State roads ⁷	93.0	92.2	95.8	(3)	(3)	(3)

¹ Preliminary.

² Data are for all construction workers (contract and force-account) engaged on new construction, additions, and alterations, and on repair work of the type usually covered by building permits. (Force-account employees are workers hired directly by the owner and utilized as a separate work force to perform construction work of the type usually chargeable to capital account.) The construction figure included in the Bureau's nonagricultural employment series covers only employees of construction contractors and on Federal force-account and excludes force-account workers of State and local governments, public utilities, and private firms.

³ Data not available.

⁴ Includes the following force-account employees, hired directly by the Federal Government, and their pay rolls: August 1944, 29,693, \$5,872,000; July 1945, 18,161, \$3,587,000; August 1945, 18,450, \$3,483,000. These employees are also included under the Federal executive service (tables 2 and 3); all other workers were employed by contractors and subcontractors.

⁵ Includes the following employees and pay rolls for Defense Plant Corporation (RFC) projects: August 1944, 30,787, \$7,716,000; July 1945, 14,921, \$3,463,000; August 1945, 13,500, \$3,132,000.

⁶ Includes central office force of construction contractors; shop employees of special trades contractors, such as bench sheet-metal workers, etc.; and site employees engaged on projects which, for security reasons, cannot be shown above.

⁷ Data for other types of maintenance not available.

Detailed Reports for Industrial and Business Employment, July 1945

Nonagricultural Employment

ESTIMATES of employment in nonagricultural establishments are shown in table 1. The estimates are based on reports of employers to the Bureau of Labor Statistics, on unemployment-compensation data made available by the Bureau of Employment Security of the Federal Security Agency, and on information supplied by other Government agencies, such as the Interstate Commerce Commission, Civil Service Commission, Bureau of the Census, and the Bureau of Old-Age and Survivors Insurance. The estimates include all wage and salaried workers in nonagricultural establishments but exclude military personnel, proprietors, self-employed persons, and domestic servants.

Estimates of employees in nonagricultural establishments, by States, are published each month in a detailed report on employment and pay rolls.

TABLE 1.—*Estimated Number of Employees in Nonagricultural Establishments, by Industry Division*

Industry division	Estimated number of employees (in thousands)			
	July 1945	June 1945	May 1945	July 1944
Total estimated employment ¹	37, 205	37, 556	37, 679	38, 731
Manufacturing ²	14, 136	14, 538	14, 811	16, 013
Mining.....	784	794	728	833
Contract construction and Federal force-account construction.....	896	845	798	686
Transportation and public utilities.....	3, 836	3, 833	3, 802	3, 809
Trade.....	6, 981	7, 004	7, 021	6, 942
Finance, service, and miscellaneous.....	4, 650	4, 589	4, 513	4, 618
Federal, State, and local government, excluding Federal force-account construction.....	5, 922	5, 953	6, 006	5, 830

¹ Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who are employed during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded.

² Estimates for manufacturing have been adjusted to levels indicated by final 1942 data made available, by the Bureau of Employment Security of the Federal Security Agency. Since the estimated number of production workers in manufacturing industries have been further adjusted to final 1943 data, subsequent to December 1942, the two sets of estimates are not comparable.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 154 manufacturing industries and for 27 nonmanufacturing industries, including water transportation and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

The employment, pay roll, hours, and earnings figures for manufacturing, mining, laundries, and cleaning and dyeing, cover production workers only; but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, while for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover production workers and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from about 25 percent for wholesale and retail trade, cleaning and dyeing, and insurance, to about 80 percent for public utilities and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative establishments in the 154 manufacturing industries surveyed. These reports cover more than 65 percent of the total production workers in all manufacturing industries of the country and about 80 percent of the production workers in the 154 industries covered.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the period ending nearest the 15th of the month.

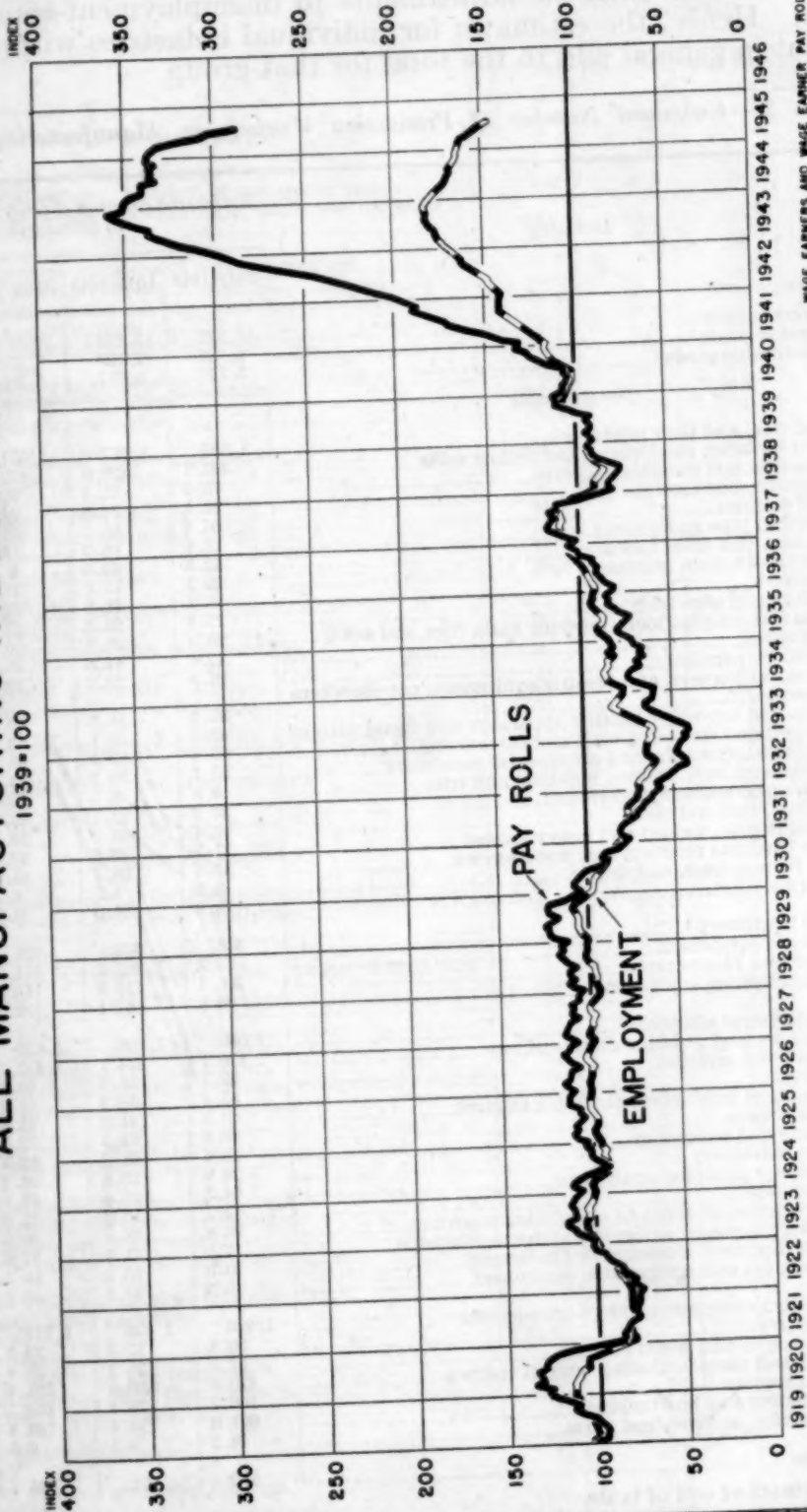
INDEXES OF EMPLOYMENT AND PAY ROLLS

Employment and pay-roll indexes, for both manufacturing and nonmanufacturing industries, for May, June, and July 1945, and for July 1944, are presented in tables 3 and 5.

The figures relating to all manufacturing industries combined, to the durable- and nondurable-goods divisions, and to the major industry groups, have been adjusted to levels indicated by final data for 1943 made available by the Bureau of Employment Security of the Federal Security Agency. The Bureau of Employment Security data referred to are (a) employment totals reported by employers under State unemployment-compensation programs and (b) estimates of the number of employees not reported under the programs of some of these States, which do not cover small establishments. The latter estimates were obtained from tabulations prepared by the Bureau of Old-Age and Survivors Insurance, which obtains reports from all employers, regardless of size of establishment.

EMPLOYMENT AND PAY ROLLS ALL MANUFACTURING INDUSTRIES

1939=100



WAGE EARNERS AND WAGE EARNER PAY ROLL

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Not all industries in each major industry group are represented in the tables since minor industries are not canvassed by the Bureau. Furthermore, no attempt has been made to allocate among the separate industries the adjustments to unemployment-compensation data. Hence, the estimates for individual industries within a group do not in general add to the total for that group.

TABLE 2.—Estimated Number of Production Workers in Manufacturing Industries

Industry	Estimated number of production workers (in thousands)			
	July 1945	June 1945	May 1945	July 1944
All manufacturing ¹	11,928	12,326	12,579	13,742
Durable goods ¹	6,782	7,109	7,370	8,279
Nondurable goods ¹	5,146	5,217	5,209	5,463
<i>Durable goods</i>				
Iron and steel and their products ¹	1,503	1,577	1,631	1,698
Blast furnaces, steel works, and rolling mills.....	461.7	470.0	473.8	481.0
Gray-iron and semisteel castings.....	70.0	71.4	72.2	72.6
Malleable-iron castings.....	23.1	24.2	24.5	24.3
Steel castings.....	60.4	64.1	69.3	73.5
Cast-iron pipe and fittings.....	15.1	16.0	16.2	15.5
Tin cans and other tinware.....	42.3	42.3	41.3	41.2
Wire drawn from purchased rods.....	29.3	31.1	31.7	32.9
Wirework.....	30.1	31.8	32.6	35.5
Cutlery and edge tools.....	21.8	23.0	23.5	22.8
Tools (except edge tools, machine tools, files, and saws).....	25.3	26.2	26.3	27.1
Hardware.....	42.5	44.6	45.2	45.8
Plumbers' supplies.....	21.8	22.2	22.5	22.7
Stoves, oil burners, and heating equipment, not elsewhere classified.....	57.2	58.6	60.6	63.7
Steam and hot-water heating apparatus and steam fittings.....	47.9	50.1	53.3	55.5
Stamped and enameled ware and galvanizing.....	80.4	83.5	85.0	89.0
Fabricated structural and ornamental metalwork.....	55.1	59.7	63.5	76.1
Metal doors, sash, frames, molding, and trim.....	8.6	8.6	10.0	13.4
Bolts, nuts, washers, and rivets.....	22.3	23.1	23.3	26.3
Forgings, iron and steel.....	30.4	33.0	34.1	35.5
Wrought pipe, welded and heavy riveted.....	21.6	22.6	23.2	26.2
Screw-machine products and wood screws.....	37.5	39.7	41.5	45.0
Steel barrels, kegs, and drums.....	8.2	8.5	8.3	6.9
Firearms.....	19.3	24.0	29.0	44.5
Electrical machinery ¹	636	668	681	749
Electrical equipment.....	385.3	403.1	411.2	449.8
Radios and phonographs.....	105.4	110.3	113.3	127.1
Communication equipment.....	94.5	101.1	102.3	112.3
Machinery, except electrical ¹	1,069	1,106	1,126	1,214
Machinery and machine-shop products.....	410.1	424.1	432.4	462.2
Engines and turbines.....	59.7	61.9	63.2	70.2
Tractors.....	53.3	54.2	54.3	60.0
Agricultural machinery, excluding tractors.....	40.8	41.6	41.6	45.4
Machine tools.....	68.8	71.5	72.7	77.0
Machine-tool accessories.....	58.6	61.3	62.9	67.8
Textile machinery.....	24.9	25.8	26.2	26.8
Pumps and pumping equipment.....	64.3	66.4	67.7	79.0
Typewriters.....	12.7	13.0	13.0	11.3
Cash registers, adding and calculating machines.....	26.8	28.3	28.5	32.2
Washing machines, wringers and driers, domestic.....	11.1	11.5	12.5	13.6
Sewing machines, domestic and industrial.....	10.0	10.3	10.5	9.4
Refrigerators and refrigeration equipment.....	45.8	47.6	49.0	52.9
Transportation equipment, except automobiles ¹	1,526	1,628	1,774	2,313
Locomotives.....	30.8	32.3	33.2	35.6
Cars, electric- and steam-railroad.....	57.7	58.2	59.4	58.7
Aircraft and parts, excluding aircraft engines.....	470.5	506.8	575.4	692.2
Aircraft engines.....	166.2	173.4	192.7	247.9
Shipbuilding and boatbuilding.....	691.0	738.7	783.6	1,116.7
Motorcycles, bicycles, and parts.....	9.2	9.5	9.5	9.4
Automobiles ¹	582	621	645	703

See footnote at end of table.

TABLE 2.—Estimated Number of Production Workers in Manufacturing Industries—Continued

Industry	Estimated number of production workers (in thousands)			
	July 1945	June 1945	May 1945	July 1944
<i>Durable goods—Continued</i>				
Nonferrous metals and their products ¹	371	396	407	423
Smelting and refining, primary, of nonferrous metals.....	38.2	38.9	38.6	48.3
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	63.1	68.1	70.9	68.1
Clocks and watches.....	22.6	24.3	25.3	25.5
Jewelry (precious metals) and jewelers' findings.....	12.9	13.2	13.1	13.7
Silverware and plated ware.....	10.6	11.0	10.9	10.6
Lighting equipment.....	23.1	25.4	26.9	26.5
Aluminum manufactures.....	61.2	66.8	69.8	72.7
Sheet-metal work, not elsewhere classified.....	29.9	31.1	31.2	32.3
Lumber and timber basic products ¹	453	458	457	496
Sawmills and logging camps.....	215.1	217.1	216.7	237.5
Planing and plywood mills.....	67.4	67.9	67.7	71.3
Furniture and finished lumber products ¹	321	329	329	346
Mattresses and bedsprings.....	16.9	17.7	17.1	16.9
Furniture.....	143.9	147.5	147.9	156.5
Wooden boxes, other than cigar.....	25.7	26.1	26.2	28.2
Caskets and other morticians' goods.....	11.8	11.8	12.0	12.7
Wood preserving.....	10.0	10.0	10.0	10.2
Wood, turned and shaped.....	20.8	21.2	21.2	21.9
Stone, clay, and glass products ¹	321	326	320	337
Glass and glassware.....	86.3	88.4	86.6	91.3
Glass products made from purchased glass.....	10.7	11.0	10.9	10.3
Cement.....	17.5	16.9	16.3	17.4
Brick, tile, and terra cotta.....	41.7	41.5	40.3	42.8
Pottery and related products.....	37.5	38.6	37.9	41.4
Gypsum.....	4.0	4.0	4.0	4.1
Wallboard, plaster (except gypsum), and mineral wool.....	9.3	9.3	9.3	9.7
Lime.....	7.5	7.6	7.7	8.2
Marble, granite, slate, and other products.....	13.1	13.1	13.1	13.1
Abrasives.....	20.5	21.2	21.2	21.3
Asbestos products.....	19.1	19.3	19.4	20.6
<i>Nondurable goods</i>				
Textile-mill products and other fiber manufactures ¹	1,034	1,055	1,050	1,104
Cotton manufactures, except smallwares.....	408.9	413.8	411.4	434.2
Cotton smallwares.....	13.0	13.4	13.4	13.1
Silk and rayon goods.....	84.5	86.4	85.6	88.5
Woolen and worsted manufactures, except dyeing and finishing.....	135.1	140.4	140.6	145.9
Hosiery.....	94.8	97.0	96.2	104.7
Knitted cloth.....	9.9	10.1	10.0	10.4
Knitted outerwear and knitted gloves.....	26.1	27.4	27.5	28.8
Knitted underwear.....	33.2	33.6	33.1	35.2
Dyeing and finishing textiles, including woolen and worsted.....	56.5	57.2	57.2	60.1
Carpets and rugs, wool.....	19.0	19.5	19.2	19.9
Hats, fur-felt.....	8.6	8.9	9.0	9.2
Jute goods, except felts.....	3.2	3.2	3.2	3.2
Cordage and twine.....	14.2	14.3	14.5	15.3
Apparel and other finished textile products ¹	761	807	814	853
Men's clothing, not elsewhere classified.....	188.0	196.3	195.6	208.2
Shirts, collars, and nightwear.....	48.0	48.5	47.9	53.2
Underwear and neckwear, men's.....	11.6	11.9	11.8	11.9
Work shirts.....	14.2	14.5	14.3	15.1
Women's clothing, not elsewhere classified.....	175.2	194.4	200.3	205.0
Corsets and allied garments.....	13.3	14.0	14.1	14.4
Millinery.....	16.3	16.0	16.8	17.4
Handkerchiefs.....	2.5	2.4	2.5	2.9
Curtains, draperies, and bedspreads.....	10.2	10.7	10.7	13.3
Housefurnishings, other than curtains, etc.....	10.8	11.2	11.2	10.4
Textile bags.....	14.6	14.9	14.8	14.0
Leather and leather products ¹	307	312	307	316
Leather.....	38.3	39.1	38.6	40.0
Boot and shoe cut stock and findings.....	16.1	16.2	16.1	16.1
Boots and shoes.....	169.3	171.5	169.7	174.0
Leather gloves and mittens.....	11.3	11.7	11.6	12.6
Trunks and suitcases.....	12.7	12.7	11.9	12.1

See footnote at end of table.

TABLE 2.—Estimated Number of Production Workers in Manufacturing Industries—Continued

Industry	Estimated number of production workers (in thousands)			
	July 1945	June 1945	May 1945	July 1944
<i>Nondurable goods—Continued</i>				
Food ¹	1,054	997	978	1,132
Slaughtering and meat packing.....	127.4	127.7	124.4	138.7
Butter.....	25.3	25.2	24.5	24.8
Condensed and evaporated milk.....	16.2	16.4	15.7	15.8
Ice cream.....	17.7	16.9	16.0	18.0
Flour.....	30.1	29.6	28.8	29.0
Feeds, prepared.....	22.2	22.4	21.0	19.0
Cereal preparations.....	9.3	9.3	9.3	9.3
Baking.....	250.1	254.7	254.7	258.4
Sugar refining, cane.....	13.2	14.0	14.7	15.2
Sugar, beet.....	4.4	4.3	4.5	4.0
Confectionery.....	49.0	53.7	54.0	54.2
Beverages, nonalcoholic.....	26.5	26.4	26.4	32.2
Malt liquors.....	52.9	51.6	50.1	53.2
Canning and preserving.....	166.3	105.9	98.7	177.2
Tobacco manufactures ¹	78	80	80	83
Cigarettes.....	33.9	33.9	33.9	35.0
Cigars.....	30.5	33.0	32.6	34.7
Tobacco (chewing and smoking and snuff).....	8.4	8.3	8.3	7.8
Paper and allied products ¹	302	308	304	317
Paper and pulp.....	142.1	144.2	142.7	146.3
Paper goods, other.....	41.9	43.4	43.1	45.9
Envelopes.....	9.2	9.4	9.2	9.6
Paper bags.....	12.3	12.7	12.6	13.6
Paper boxes.....	75.3	76.7	75.3	79.3
Printing, publishing, and allied industries ¹	317	320	320	326
Newspapers and periodicals.....	107.7	109.4	109.2	109.7
Printing, book and job.....	131.1	131.1	131.3	135.0
Lithographing.....	24.2	24.1	24.1	25.1
Bookbinding.....	26.7	27.3	27.2	28.2
Chemicals and allied products ¹	587	612	623	584
Paints, varnishes, and colors.....	28.9	29.1	28.8	30.0
Drugs, medicines, and insecticides.....	50.2	50.3	50.0	50.5
Perfumes and cosmetics.....	12.5	12.3	12.2	11.9
Soap.....	13.0	13.1	13.2	13.5
Rayon and allied products.....	53.6	53.8	53.1	52.7
Chemicals, not elsewhere classified.....	113.0	114.7	114.1	118.9
Explosives and safety fuses.....	87.6	94.6	97.9	76.0
Compressed and liquefied gases.....	5.9	6.0	5.9	6.1
Ammunition, small-arms.....	57.4	64.3	66.1	48.1
Fireworks.....	17.5	20.0	22.0	30.5
Cottonseed oil.....	11.6	12.1	13.3	11.3
Fertilizers.....	19.6	20.9	23.7	18.6
Products of petroleum and coal ¹	135	134	134	134
Petroleum refining.....	93.0	92.7	92.2	90.5
Coke and byproducts.....	21.8	21.8	21.8	23.1
Paving materials.....	1.8	1.7	1.7	1.8
Roofing materials.....	9.4	9.4	9.2	9.7
Rubber products ¹	183	188	191	194
Rubber tires and inner tubes.....	87.7	90.2	91.6	89.6
Rubber boots and shoes.....	16.8	17.0	16.8	19.6
Rubber goods, other.....	66.0	67.9	69.4	71.9
Miscellaneous industries ¹	388	404	408	420
Instruments (professional and scientific) and fire-control equipment.....	52.3	56.6	59.1	62.2
Photographic apparatus.....	26.8	27.0	27.3	29.6
Optical instruments and ophthalmic goods.....	20.8	22.7	23.2	23.9
Pianos, organs, and parts.....	7.7	8.0	7.8	6.1
Games, toys, and dolls.....	14.5	15.1	15.4	16.4
Buttons.....	9.0	9.2	9.5	9.2
Fire extinguishers.....	4.2	4.3	4.5	5.6

¹ Estimates for the major industry groups have been adjusted to levels indicated by the final 1943 data made available by the Bureau of Employment Security of the Federal Security Agency and should not be compared with the manufacturing employment estimates of production workers plus salaried employees appearing in table 1. Data for 15 major groups are not comparable with data published in mimeographed releases dated prior to September 1945 or in the October 1945 issue of the Monthly Labor Review. Comparable data from January 1939 are available upon request. Five major groups—Furniture and finished lumber products, Stone, clay and glass products, Tobacco manufactures, Chemicals and allied products, and Products of petroleum and coal—needed no further adjustment and are therefore comparable with the data previously published. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, the sum of the individual industry estimates will not agree with totals shown for the major industry groups.

TABLE 3.—Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries

Industry	Employment indexes (1939 average=100)				Pay-roll indexes (1939 average=100)			
	July 1945	June 1945	May 1945	July 1944	July 1945	June 1945	May 1945	July 1944
All manufacturing ¹	145.6	150.5	153.6	167.7	286.5	302.5	307.0	331.7
Durable goods ¹	187.8	196.9	204.1	229.3	372.7	399.8	413.3	461.4
Nondurable goods ¹	112.3	113.9	113.7	119.3	202.2	207.3	202.9	204.9
<i>Durable goods</i>								
Iron and steel and their products ¹	151.6	159.1	164.5	171.3	279.2	298.5	308.8	314.1
Blast furnaces, steel works, and rolling mills.....	118.9	121.0	122.0	123.8	215.3	222.8	227.1	224.9
Gray-iron and semisteel castings.....	119.8	122.2	123.5	124.2	239.9	250.0	251.0	243.6
Malleable-iron castings.....	127.9	134.0	135.9	134.8	249.5	277.7	279.1	273.5
Steel castings.....	200.6	213.2	230.3	244.4	345.4	389.4	421.8	434.4
Cast-iron pipe and fittings.....	91.4	96.7	97.8	93.6	183.6	198.5	192.2	177.0
Tin cans and other tinware.....	133.0	133.2	129.9	129.7	231.8	229.8	213.1	212.1
Wire drawn from purchased rods.....	133.2	141.6	144.2	149.9	217.4	231.4	239.6	240.3
Wirework.....	99.1	104.6	107.2	116.7	196.0	204.2	208.9	236.5
Cutlery and edge tools.....	141.1	149.0	152.7	148.0	289.9	304.6	308.2	304.2
Tools (except edge tools, machine tools, files, and saws).....	165.2	171.4	171.7	177.2	311.9	326.4	322.8	327.8
Hardware.....	119.1	125.0	126.8	128.4	243.8	263.0	268.4	257.6
Plumbers' supplies.....	88.3	89.9	91.4	92.3	158.9	163.2	171.7	164.2
Stoves, oil burners, and heating equipment, not elsewhere classified.....	124.0	127.1	131.4	138.1	233.5	243.9	246.9	252.3
Steam and hot-water heating apparatus and steam fittings.....	158.0	165.2	176.0	183.1	292.2	320.4	334.4	338.4
Stamped and enameled ware and galvanizing.....	144.8	150.4	153.0	160.2	282.3	304.1	312.5	319.8
Fabricated structural and ornamental metalwork.....	155.0	168.0	178.8	214.1	278.8	317.8	340.8	417.6
Metal doors, sash, frames, molding, and trim.....	110.6	111.1	128.6	173.3	210.7	216.0	239.6	335.7
Bolts, nuts, washers, and rivets.....	156.2	161.7	163.0	184.0	290.7	323.3	328.1	340.5
Forgings, iron and steel.....	197.7	214.9	221.6	230.7	373.7	422.4	431.5	441.7
Wrought pipe, welded and heavy riveted.....	258.0	270.1	276.8	313.3	565.5	593.6	585.5	600.6
Screw-machine products and wood screws.....	221.8	234.5	245.4	265.7	427.3	463.5	476.7	507.7
Steel barrels, kegs, and drums.....	135.2	139.2	136.0	113.8	288.0	308.5	260.8	214.7
Firearms.....	385.8	479.3	579.8	889.7	847.0	1057.0	1299.6	1998.0
Electrical machinery ¹	245.6	257.9	263.0	289.2	445.0	474.0	484.8	513.9
Electrical equipment.....	213.2	223.0	227.5	248.8	387.0	415.1	425.5	450.6
Radios and phonographs.....	242.2	253.5	260.4	292.2	463.4	486.3	501.1	542.4
Communication equipment.....	294.2	314.9	318.4	349.5	507.3	532.2	535.0	558.3
Machinery, except electrical ¹	202.2	209.3	213.1	229.8	371.6	393.9	392.1	421.8
Machinery and machine-shop products.....	202.7	209.6	213.7	228.4	365.9	386.4	386.4	408.6
Engines and turbines.....	319.8	332.0	338.6	376.3	640.6	679.9	682.9	783.7
Tractors.....	170.6	173.2	173.8	191.7	271.9	278.2	272.0	293.4
Agricultural machinery, excluding tractors.....	146.6	149.5	149.4	163.2	295.7	306.3	288.7	334.0
Machine tools.....	187.7	195.2	198.4	210.2	328.8	353.4	347.6	370.6
Machine-tool accessories.....	233.1	243.7	249.8	269.5	388.3	421.5	429.9	457.9
Textile machinery.....	113.8	118.0	119.4	122.3	210.9	227.7	223.9	225.7
Pumps and pumping equipment.....	265.1	274.0	279.3	326.0	542.8	584.7	576.2	676.1
Typewriters.....	78.6	80.4	79.9	60.4	158.6	167.7	166.0	140.2
Cash registers, adding and calculating machines.....	136.0	143.9	144.7	163.6	266.4	278.5	273.8	315.2
Washing machines, wringers and driers, domestic.....	148.7	153.6	167.3	182.1	259.6	281.8	287.7	326.9
Sewing machines, domestic and industrial.....	127.0	131.1	134.4	120.2	260.8	271.4	270.7	246.9
Refrigerators and refrigeration equipment.....	130.3	135.3	139.4	150.4	228.7	242.6	249.9	251.1
Transportation equipment, except automobiles ¹	961.1	1025.4	1117.7	1457.3	1999.9	2152.8	2322.6	2979.8
Locomotives.....	475.9	499.7	512.5	550.7	1001.5	1086.4	1167.8	1183.3
Cars, electric- and steam-railroad.....	235.4	237.3	242.2	239.4	448.5	472.0	485.4	466.9
Aircraft and parts, excluding aircraft engines.....	1185.9	1277.3	1450.4	1744.7	2307.1	2542.5	2837.0	3337.8
Aircraft engines.....	1869.5	1949.7	2167.0	2787.9	3042.5	3231.9	3703.0	4761.1
Shipbuilding and boatbuilding.....	997.9	1066.8	1131.6	1612.7	2193.4	2327.7	2433.6	3386.5
Motorcycles, bicycles, and parts.....	132.3	135.9	135.6	134.5	252.0	257.6	265.9	249.4
Automobiles ¹	144.6	154.3	160.2	174.7	243.7	272.6	283.2	314.0
Nonferrous metals and their products ¹	162.0	172.7	177.7	184.4	302.7	327.0	336.5	342.1
Smelting and refining, primary, of nonferrous metals.....	138.3	140.6	139.8	174.7	267.5	262.1	261.5	324.8
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	162.6	175.5	182.6	175.5	293.8	328.4	340.7	320.1
Clocks and watches.....	111.5	119.9	124.6	125.9	234.2	251.7	265.1	255.4
Jewelry (precious metals) and jewelers' findings.....	89.6	91.3	91.1	94.9	148.1	161.0	158.5	149.4
Silverware and plated ware.....	87.1	90.5	89.5	87.6	153.0	162.5	162.4	158.2
Lighting equipment.....	112.7	124.2	131.5	129.4	204.0	232.2	242.0	218.9
Aluminum manufactures.....	260.0	283.5	296.3	308.9	449.9	497.4	523.5	550.5
Sheet-metal work, not elsewhere classified.....	159.4	166.0	166.2	172.1	306.7	323.8	320.0	322.5

See footnote at end of table.

TABLE 3.—*Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries—Continued*

Industry	Employment indexes (1939 average=100)				Pay-roll indexes (1939 average=100)			
	July 1945	June 1945	May 1945	July 1944	July 1945	June 1945	May 1945	July 1944
<i>Durable goods—Continued</i>								
Lumber and timber basic products ¹	107.9	108.9	108.8	118.0	192.9	209.6	203.1	213.2
Sawmills and logging camps.....	74.7	75.4	75.3	82.5	133.9	147.6	142.4	151.5
Planing and plywood mills.....	92.7	93.4	93.2	98.2	160.0	167.4	164.0	165.5
Furniture and finished lumber products ¹	98.0	100.2	100.2	105.4	181.3	189.1	187.7	187.0
Mattresses and bedsprings.....	92.2	96.3	93.2	92.0	163.9	176.1	168.5	155.2
Furniture.....	90.4	92.7	92.9	98.3	165.7	173.3	173.0	173.9
Wooden boxes, other than cigar.....	101.3	102.9	103.5	111.1	205.5	212.4	207.9	213.7
Caskets and other morticians' goods.....	94.6	95.0	96.1	101.8	164.3	165.0	172.5	162.0
Wood preserving.....	88.6	88.8	88.5	90.3	194.8	198.1	195.6	193.0
Wood, turned and shaped.....	94.7	96.5	96.3	99.7	173.6	180.3	174.9	176.2
Stone, clay, and glass products ¹	109.3	111.0	109.1	114.7	187.7	192.0	187.9	186.2
Glass and glassware.....	123.6	126.6	124.0	130.7	193.5	200.8	199.8	197.1
Glass products made from purchased glass.....	106.6	109.7	108.9	103.4	180.9	190.2	191.4	165.5
Cement.....	73.4	71.1	68.6	73.2	127.5	120.8	114.0	112.8
Brick, tile, and terra cotta.....	73.4	73.0	71.0	75.5	127.4	126.2	121.1	121.5
Pottery and related products.....	113.2	116.5	114.6	125.0	176.3	186.1	183.6	187.0
Gypsum.....	80.9	81.9	80.1	82.7	141.2	142.8	133.5	140.9
Wallboard, plaster (except gypsum), and mineral wool.....	114.6	114.1	114.3	119.1	221.3	213.8	209.9	217.6
Lime.....	78.8	80.2	80.9	86.4	161.9	164.3	159.2	167.3
Marble, granite, slate, and other products.....	70.7	70.7	70.7	70.7	113.8	114.1	109.7	105.8
Abrasives.....	265.4	273.5	273.5	275.3	458.1	492.0	481.0	452.6
Asbestos products.....	120.0	121.3	122.4	129.4	252.8	254.8	246.7	253.2
<i>Nondurable goods</i>								
Textile-mill products and other fiber manufactures ¹	90.4	92.2	91.8	96.5	169.9	174.6	166.6	170.7
Cotton manufactures, except smallwares.....	103.3	104.5	103.9	109.6	209.8	210.3	200.2	206.6
Cotton smallwares.....	97.8	100.6	100.7	98.1	187.2	198.4	186.9	174.7
Silk and rayon goods.....	70.5	72.1	71.4	73.9	138.4	142.1	133.7	130.7
Woolen and worsted manufactures, except dyeing and finishing.....	90.5	94.1	94.2	97.8	177.2	186.7	178.9	184.3
Hosiery.....	59.6	61.0	60.5	65.8	93.7	100.0	95.3	101.6
Knitted cloth.....	90.4	92.1	91.2	95.2	163.6	168.6	160.9	160.9
Knitted underwear and knitted gloves.....	92.7	97.6	97.9	102.4	172.3	189.4	184.8	180.9
Knitted underwear.....	86.0	87.2	85.8	91.4	162.0	166.4	159.5	159.4
Dyeing and finishing textiles, including woolen and worsted.....	84.4	85.6	85.5	89.9	145.0	147.3	141.1	147.0
Carpets and rugs, wool.....	74.1	76.2	75.2	77.9	131.1	137.4	126.3	132.1
Hats, fur-felt.....	59.2	61.3	61.9	63.4	109.6	112.5	116.6	109.3
Jute goods, except felts.....	88.9	89.4	88.9	89.3	171.5	176.0	175.4	167.7
Cordage and twine.....	117.5	118.0	119.6	126.1	227.5	230.4	227.8	231.2
Apparel and other finished textile products ¹	96.4	102.2	103.1	108.1	167.5	183.1	181.5	178.8
Men's clothing, not elsewhere classified.....	86.0	89.8	89.5	95.2	151.5	164.2	156.6	154.6
Shirts, collars, and nightwear.....	68.1	68.9	68.0	75.5	125.7	125.8	123.2	133.4
Underwear and neckwear, men's.....	71.8	73.4	73.2	73.7	146.8	153.7	149.1	142.3
Work shirts.....	105.4	107.8	106.5	112.1	197.2	208.0	201.6	183.2
Women's clothing, not elsewhere classified.....	64.5	71.6	73.7	75.5	109.0	125.7	131.1	125.6
Corsets and allied garments.....	71.0	74.5	74.9	76.5	122.6	134.6	131.0	126.4
Millinery.....	66.9	65.9	69.0	71.6	106.3	91.4	84.2	103.2
Handkerchiefs.....	50.8	50.5	50.7	59.4	93.0	96.2	96.8	104.1
Curtains, draperies, and bedspreads.....	60.6	63.3	63.5	78.4	121.2	135.8	133.2	149.4
Housefurnishings, other than curtains, etc.....	102.1	105.7	105.1	98.2	183.7	195.6	193.4	178.3
Textile bags.....	122.0	124.3	123.5	116.7	207.7	212.9	210.7	193.3
Leather and leather products ¹	88.5	89.8	88.6	91.1	165.0	170.3	161.1	157.7
Leather.....	81.0	82.7	81.7	84.6	146.0	149.3	147.3	146.5
Boot and shoe cut stock and findings.....	85.5	86.0	85.2	85.5	147.7	152.5	147.1	141.5
Boots and shoes.....	77.7	78.7	77.8	79.8	149.0	154.1	143.2	139.8
Leather gloves and mittens.....	113.3	116.9	116.5	126.2	200.1	210.9	207.9	214.5
Trunks and suitcases.....	152.8	152.7	142.4	145.7	250.2	256.5	242.8	228.2
Food ¹	123.3	116.7	114.5	132.5	205.8	196.4	188.1	211.7
Slaughtering and meat packing.....	105.7	106.0	103.3	131.7	175.0	177.9	162.5	219.6
Butter.....	140.8	140.6	136.4	137.9	234.9	230.6	216.0	215.7
Condensed and evaporated milk.....	166.7	169.2	161.6	162.7	296.5	302.2	279.3	271.0
Ice cream.....	112.9	107.9	101.9	114.4	169.0	156.0	145.0	163.5
Flour.....	121.4	119.3	116.3	116.9	218.3	211.0	202.0	195.3
Feeds, prepared.....	144.0	145.1	136.5	129.5	259.4	258.4	238.6	224.3
Cereal preparations.....	124.4	124.7	125.0	125.2	225.9	231.0	226.3	216.2

See footnote at end of table.

TABLE 3.—Indexes of Production-Worker Employment and Pay Rolls in Manufacturing Industries—Continued

Industry	Employment indexes (1939 average=100)				Pay-roll indexes (1939 average=100)			
	July 1945	June 1945	May 1945	July 1944	July 1945	June 1945	May 1945	July 1944
<i>Nondurable goods—Continued</i>								
<i>Food 1—Continued.</i>								
Baking.....	108.4	110.4	110.4	112.0	174.6	174.1	171.4	168.0
Sugar refining, cane.....	93.3	99.1	104.0	107.2	145.1	155.1	168.8	174.0
Sugar, beet.....	41.9	41.6	43.6	38.7	65.8	65.1	65.6	55.7
Confectionery.....	98.6	108.0	108.5	108.9	164.2	187.4	184.8	178.2
Beverages, nonalcoholic.....	124.8	124.4	124.1	151.6	177.7	169.7	167.2	213.0
Malt liquors.....	146.7	143.1	139.0	147.8	230.7	219.9	205.6	225.5
Canning and preserving.....	123.6	78.8	73.4	131.8	246.3	154.6	144.4	242.8
Tobacco manufactures 1.....	83.2	85.9	85.4	88.6	151.4	164.1	156.4	157.0
Cigarettes.....	123.5	123.5	123.5	127.7	200.5	204.4	192.1	196.9
Cigars.....	59.9	64.8	64.1	68.2	114.6	136.8	132.7	132.3
Tobacco (chewing and smoking) and snuff.....	91.3	90.5	90.7	84.6	148.8	150.2	145.3	132.7
Paper and allied products 1.....	113.7	116.0	114.6	119.3	193.5	197.7	190.7	192.8
Paper and pulp.....	103.4	104.9	103.8	106.4	180.7	183.8	177.5	178.6
Paper goods, other.....	111.4	115.2	114.5	122.0	181.8	192.5	185.5	194.1
Envelopes.....	105.8	108.3	106.0	109.6	165.5	172.0	167.9	167.2
Paper bags.....	110.7	115.0	113.3	122.4	198.5	198.2	192.5	194.4
Paper boxes.....	108.9	110.9	108.9	114.6	180.6	182.8	175.2	175.8
Printing, publishing, and allied industries 1.....	96.8	97.5	97.5	99.6	137.8	139.6	138.9	135.3
Newspapers and periodicals.....	90.7	92.2	92.1	92.5	119.9	121.7	122.4	117.1
Printing, book and job.....	103.8	103.8	103.9	106.9	155.1	155.6	154.4	151.9
Lithographing.....	93.2	92.6	92.6	96.5	134.6	137.5	135.5	132.4
Bookbinding.....	103.5	106.0	105.5	109.3	178.3	186.3	180.3	181.3
Chemicals and allied products 1.....	203.7	212.5	216.3	202.7	363.0	381.3	388.9	355.6
Paints, varnishes, and colors.....	102.9	103.2	102.4	106.8	168.8	171.3	166.6	167.1
Drugs, medicines, and insecticides.....	183.2	183.5	182.5	184.4	273.6	284.6	282.0	267.2
Perfumes and cosmetics.....	120.4	118.4	117.9	115.1	177.1	171.4	163.0	164.6
Soap.....	95.5	96.6	97.4	99.5	157.8	163.1	164.7	162.9
Rayon and allied products.....	111.0	111.4	109.9	109.2	184.1	185.5	183.2	174.0
Chemicals, not elsewhere classified.....	162.4	164.8	164.1	170.9	291.8	298.5	295.2	297.6
Explosives and safety fuses.....	1207.2	1304.3	1349.3	1048.3	1879.8	1984.3	2096.3	1646.0
Compressed and liquefied gases.....	148.4	150.3	149.2	154.0	270.2	264.6	268.1	270.4
Ammunition, small-arms.....	1345.7	1507.7	1549.1	1126.9	2636.2	3037.4	3185.2	2271.1
Fireworks.....	1510.1	1729.8	1897.9	2632.8	4070.7	4789.5	5294.0	6957.9
Cottonseed oil.....	76.5	79.5	87.5	74.6	150.7	164.4	183.6	143.6
Fertilizers.....	104.4	111.5	126.2	99.1	247.4	258.8	292.6	224.7
Products of petroleum and coal 1.....	127.4	126.8	126.3	126.4	233.4	229.5	226.9	223.2
Petroleum refining.....	127.7	127.3	126.5	124.3	229.1	224.4	222.6	215.6
Coke and byproducts.....	100.5	100.3	100.3	106.5	190.8	189.9	186.1	191.7
Paving materials.....	72.4	69.8	70.5	75.5	149.5	144.3	132.8	156.0
Roofing materials.....	117.2	116.3	114.8	120.6	216.9	218.3	209.2	218.6
Rubber products 1.....	151.1	155.2	157.6	160.5	281.3	287.3	283.6	282.7
Rubber tires and inner tubes.....	162.1	166.7	169.2	165.6	286.8	293.8	288.6	280.9
Rubber boots and shoes.....	113.1	114.5	113.3	132.1	214.9	217.1	208.3	237.0
Rubber goods, other.....	127.5	131.2	134.1	138.9	238.3	242.7	243.9	245.2
Miscellaneous industries 1.....	158.5	165.0	166.6	171.6	300.9	323.8	324.4	323.2
Instruments (professional and scientific) and fire-control equipment.....	473.3	511.7	534.3	562.3	835.0	987.6	995.6	1082.0
Photographic apparatus.....	154.9	156.5	157.9	171.7	259.6	262.5	265.4	271.9
Optical instruments and ophthalmic goods.....	178.8	195.6	199.6	205.5	294.0	335.6	344.3	337.8
Pianos, organs, and parts.....	101.7	105.2	103.0	79.8	197.9	207.4	197.3	144.3
Games, toys, and dolls.....	78.0	81.1	82.8	88.0	152.8	161.9	164.2	169.8
Buttons.....	82.4	83.5	86.8	84.2	165.4	171.0	172.1	159.6
Fire extinguishers.....	420.0	434.8	454.7	561.3	892.9	969.5	1028.2	1126.2

¹ Indexes for the major industry groups have been adjusted to levels indicated by the final 1943 data made available by the Bureau of Employment Security of the Federal Security Agency. Indexes for 15 major groups are not comparable with those published in mimeographed releases dated prior to September 1945 or in the October 1945 issue of the Monthly Labor Review. Comparable indexes from January 1939 are available upon request. Five major groups—Furniture and finished lumber products, Stone, clay, and glass products, Tobacco manufactures, Chemicals and allied products, and Products of petroleum and coal—needed no further adjustment and are therefore comparable with the data previously published.

TABLE 4.—Estimated Number of Production Workers in Selected Nonmanufacturing Industries

Industry	Estimated number of production workers (in thousands)			
	July 1945	June 1945	May 1945	July 1944
Mining:				
Anthracite.....	64.3	65.3	8.0	64.5
Bituminous coal.....	323	331	327	351
Metal.....	65.8	67.0	68.2	77.3
Iron.....	24.1	24.2	24.5	27.4
Copper.....	20.2	20.9	21.4	25.2
Lead and zinc.....	13.6	14.0	14.3	15.5
Gold and silver.....	5.2	5.2	5.3	5.7
Miscellaneous.....	2.7	2.7	2.7	3.5
Telephone ¹	(²)	(²)	(²)	(²)
Telegraph ³	(²)	44.4	44.2	46.6
Electric light and power ¹	204	202	200	203
Street railways and busses ¹	226	227	228	230
Hotels (year-round) ¹	353	353	350	352
Power laundries.....	(²)	(²)	(²)	(²)
Cleaning and dyeing.....	(²)	(²)	(²)	(²)
Class I steam railroads ⁴	1,451	1,454	1,427	1,443
Water transportation ⁵	162	159	159	131

¹ Data include salaried personnel.² Not available.³ Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies. Data include salaried personnel.⁴ The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.⁵ Source: Interstate Commerce Commission. Data include salaried personnel.⁶ Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to or owned by the Army or Navy.

TABLE 5.—Indexes of Employment and Pay Rolls in Selected Nonmanufacturing Industries

Industry	Employment indexes (1939 average=100)				Pay-roll indexes (1939 average=100)			
	July 1945	June 1945	May 1945	July 1944	July 1945	June 1945	May 1945	July 1944
Mining:								
Anthracite.....	77.6	78.9	9.7	77.9	142.7	145.4	14.3	130.6
Bituminous coal.....	87.2	89.3	88.2	94.7	189.8	226.5	204.5	194.4
Metal.....	74.6	76.0	77.3	87.6	121.1	128.5	128.6	135.1
Iron.....	119.6	120.3	121.7	136.2	201.6	215.6	215.1	211.9
Copper.....	84.9	87.7	89.9	105.6	141.7	151.0	151.3	168.4
Lead and zinc.....	87.2	90.3	92.0	99.8	161.1	171.0	172.0	177.0
Gold and silver.....	21.0	21.2	21.5	23.0	26.0	27.1	27.3	28.2
Miscellaneous.....	69.0	67.7	68.0	88.3	114.1	113.4	112.4	144.7
Quarrying and nonmetallic.....	81.3	80.5	78.3	86.4	161.9	158.8	150.8	160.7
Crude-petroleum production ¹	83.8	83.6	82.8	84.1	135.7	136.1	132.4	136.5
Public utilities:								
Telephone.....	(²)	(²)	(²)	129.7	(²)	(²)	(²)	156.8
Telegraph.....	(²)	117.9	117.4	123.9	(²)	175.3	174.0	179.3
Electric light and power.....	83.6	82.8	82.0	83.2	119.6	119.2	117.5	114.6
Street railways and busses.....	116.8	117.3	117.8	118.8	177.1	178.2	176.2	170.3
Wholesale trade.....	94.9	94.4	94.5	95.1	144.7	141.9	140.8	135.9
Retail trade.....	95.0	96.2	96.7	95.5	136.6	134.2	131.0	128.3
Food.....	100.0	101.0	103.0	105.9	145.5	142.8	139.0	143.0
General merchandise.....	108.1	111.2	112.7	104.8	148.7	148.3	144.0	136.7
Apparel.....	99.8	106.6	107.8	101.8	150.0	152.8	149.0	139.2
Furniture and housefurnishings.....	62.0	62.2	61.6	63.4	90.8	89.9	89.0	88.4
Automotive.....	69.4	68.3	68.0	66.6	108.3	105.3	102.8	97.5
Lumber and building materials.....	92.2	92.4	90.7	92.4	138.7	138.0	135.2	133.0
Hotels (year-round) ³	109.4	109.5	108.5	109.2	171.2	171.5	167.9	157.4
Power laundries.....	108.3	107.2	104.9	112.1	169.7	166.3	161.9	165.1
Cleaning and dyeing.....	121.3	122.1	119.8	122.3	197.8	199.9	191.4	187.3
Class I steam railroads ⁴	146.9	147.2	144.4	146.1	(²)	(²)	(²)	(²)
Water transportation ⁵	308.9	303.0	303.5	249.1	(²)	744.5	746.2	585.6

¹ Does not include well drilling or rig building.² Not available.³ Cash payments only; additional value of board, room, and tips not included.⁴ Source: Interstate Commerce Commission.⁵ Based on estimates prepared by the U. S. Maritime Commission covering employment on active deep-sea American-flag steam and motor merchant vessels of 1,000 gross tons and over. Excludes vessels under bareboat charter to or owned by the Army or Navy.

AVERAGE EARNINGS AND HOURS

Average weekly earnings and hours and average hourly earnings for May, June, and July 1945, where available, are given in table 6 for both manufacturing and nonmanufacturing industries. (For trend of earnings since 1939, see page 776 of this issue.)

The average weekly earnings for individual industries are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, the average hours worked per week and average hourly earnings shown in this table are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The average weekly hours and hourly earnings for the manufacturing groups are weighted arithmetic means of the averages for the individual industries, estimated employment being used as weights for weekly hours and estimated aggregate hours as weights for hourly earnings. The average weekly earnings for these groups are computed by multiplying the average weekly hours by the corresponding average hourly earnings.

TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries

MANUFACTURING

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average hourly earnings ¹		
	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945
All manufacturing.....	\$45.42	\$46.34	\$46.02	44.0	44.6	44.1	103.3	103.8	104.2
Durable goods.....	50.60	51.78	51.56	44.9	45.8	45.5	112.7	113.1	113.4
Nondurable goods.....	38.50	38.93	38.18	42.8	43.0	42.3	90.2	90.4	90.3
<i>Durable goods</i>									
Iron and steel and their products.....	50.22	51.15	51.14	45.2	46.0	46.0	111.2	111.3	111.2
Blast furnaces, steel works, and rolling mills.....	54.64	55.39	56.24	44.9	45.6	46.6	121.1	121.4	120.8
Gray-iron and semisteel castings.....	51.22	52.38	51.93	46.5	47.6	46.7	110.3	110.0	111.2
Malleable-iron castings.....	48.84	51.47	51.02	45.0	47.1	46.1	107.9	109.2	110.9
Steel castings.....	48.33	51.27	51.49	41.9	44.4	44.7	115.3	115.4	115.1
Cast-iron pipe and fittings.....	42.19	43.47	41.59	47.1	47.5	46.3	90.2	91.5	89.8
Tin cans and other tinware.....	41.48	41.07	39.05	45.9	45.2	43.0	90.7	91.0	90.9
Wirework.....	49.76	49.03	48.83	46.6	46.1	45.7	106.9	106.4	106.8
Cutlery and edge tools.....	43.95	43.73	43.18	45.6	45.2	44.5	97.3	97.1	97.4
Tools (except edge tools, machine tools, files, and saws).....	45.95	46.04	45.66	46.6	46.5	45.7	98.6	100.0	99.8
Hardware.....	45.22	46.48	46.97	45.6	46.5	46.6	99.7	100.5	100.8
Plumbers' supplies.....	47.20	47.62	49.07	44.5	44.6	45.5	106.0	106.7	107.9
Stoves, oil burners, and heating equipment, not elsewhere classified.....	46.70	47.85	46.83	44.5	45.6	44.3	105.8	105.1	105.9
Steam and hot-water heating apparatus and steam fittings.....	47.56	49.89	48.87	45.4	47.3	46.3	104.8	105.5	105.5
Stamped and enameled ware and galvanizing.....	44.78	46.37	46.87	43.5	44.8	44.6	102.8	103.4	105.0
Fabricated structural and ornamental metalwork.....	50.23	52.79	53.29	45.8	47.6	47.2	109.7	110.9	112.7
Metal doors, sash, frames, molding, and trim.....	51.38	52.46	50.25	45.1	45.4	45.3	113.8	115.4	111.0

See footnotes at end of table.

TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average hourly earnings ¹		
	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945
<i>Durable goods—Continued</i>									
Iron and steel and their products—Con.							<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Bolts, nuts, washers, and rivets	\$46.92	\$50.42	\$50.77	44.8	47.6	47.7	106.0	107.2	106.6
Forgings, iron and steel	57.07	59.14	58.40	45.1	46.5	45.9	125.8	126.7	127.3
Screw-machine products and wood screws	49.54	50.87	50.00	46.5	47.6	47.0	106.5	106.9	106.3
Steel barrels, kegs, and drums	46.12	48.01	41.57	45.0	46.9	41.8	102.4	103.0	99.9
Firearms	57.88	58.15	59.10	46.1	45.6	44.7	125.4	126.0	129.5
Electrical machinery	47.94	48.58	48.73	45.4	45.8	45.6	105.7	106.1	106.8
Electrical equipment	49.80	51.00	51.18	45.4	46.2	46.1	109.5	110.3	111.1
Radio and phonographs	41.75	41.79	41.91	45.2	45.1	45.0	92.5	92.6	93.1
Communication equipment	47.83	46.88	46.60	45.4	45.0	44.7	105.1	103.6	103.9
Machinery, except electrical	53.53	54.91	53.68	46.6	47.7	46.6	114.9	115.0	115.2
Machinery and machine-shop products	52.57	53.78	52.82	46.6	47.8	46.6	112.8	112.6	113.1
Engines and turbines	56.24	57.44	56.44	45.5	46.5	45.9	123.8	123.8	123.3
Tractors	53.71	54.09	52.72	46.0	46.4	45.1	116.7	116.7	116.8
Agricultural machinery, excluding tractors	53.29	54.35	51.30	46.7	47.5	44.9	114.8	114.5	114.3
Machine tools	56.36	58.23	56.50	47.4	48.9	47.7	118.9	119.1	118.3
Machine-tool accessories	57.24	59.25	58.86	46.4	47.8	47.8	123.8	124.2	123.5
Textile machinery	48.22	50.13	48.84	46.9	48.7	47.7	102.8	103.0	102.5
Typewriters	48.48	50.21	50.00	47.0	48.4	47.8	103.2	103.8	104.6
Cash registers, adding and calculating machines	59.38	58.72	57.40	48.3	47.8	46.8	123.9	123.6	123.4
Washing machines, wringers and driers, domestic	46.08	48.39	45.37	44.9	46.5	43.2	102.7	104.0	105.1
Sewing machines, domestic and industrial	56.06	55.87	54.38	49.7	49.8	48.4	113.2	112.8	112.8
Refrigerators and refrigeration equipment	50.53	51.62	51.53	45.6	45.8	45.2	111.2	112.6	114.0
Transportation equipment, except automobiles	59.60	60.15	59.56	45.8	46.2	45.9	130.3	130.2	129.7
Locomotives	62.58	64.65	64.64	45.9	47.3	47.2	136.0	136.2	137.0
Cars, electric and steam-railroad	50.14	52.35	52.75	43.6	44.3	44.2	115.3	118.2	119.4
Aircraft and parts, excluding aircraft engines	54.93	56.24	55.32	45.8	46.9	46.5	119.8	119.9	118.9
Aircraft engines	56.17	57.16	58.92	43.6	44.2	45.1	128.8	129.3	130.8
Shipbuilding and boatbuilding	64.56	64.15	62.26	46.5	46.3	45.8	138.9	138.5	138.2
Motorcycles, bicycles, and parts	52.73	52.46	54.25	47.6	47.4	47.8	110.8	110.7	113.5
Automobiles	53.05	55.54	55.74	42.4	43.8	43.9	125.2	126.8	126.9
Nonferrous metals and their products	48.58	49.54	49.52	45.4	46.1	46.0	107.0	107.4	107.7
Smelting and refining, primary, of nonferrous metals	51.63	49.75	49.93	47.0	46.2	46.6	109.8	107.8	107.0
Alloying and rolling and drawing of nonferrous metals, except aluminum	51.87	53.70	53.41	45.4	47.3	46.9	112.5	113.8	114.6
Clocks and watches	43.64	43.82	44.30	45.7	45.6	45.8	95.7	96.2	96.7
Jewelry (precious metals) and jewelers' findings	42.24	44.97	44.35	43.4	45.3	44.7	97.0	99.0	99.1
Silverware and plated ware	46.26	47.41	47.90	45.2	45.9	46.1	103.1	103.2	104.0
Lighting equipment	47.06	48.60	47.86	44.4	45.2	44.8	106.0	107.5	106.9
Aluminum manufactures	47.08	48.46	48.69	44.7	45.4	45.4	106.5	106.4	107.3
Lumber and timber basic products	33.64	36.20	34.97	41.5	44.0	42.9	81.0	82.2	81.4
Sawmills and logging camps	32.31	35.22	33.90	40.7	43.5	42.4	79.4	80.9	80.0
Planing and plywood mills	37.78	39.41	38.54	44.0	45.6	44.7	86.0	86.2	85.9
Furniture and finished lumber products	36.90	37.63	37.51	43.3	44.1	43.6	85.2	85.3	85.9
Furniture	37.35	37.98	38.23	42.8	43.8	43.5	87.4	87.3	88.3
Caskets and other morticians' goods	39.94	39.95	41.14	44.7	44.8	45.1	90.1	89.5	91.6
Wood preserving	35.07	35.60	35.18	44.7	45.2	44.6	78.2	78.7	78.8
Stone, clay, and glass products	40.29	40.69	40.46	43.3	43.8	43.6	93.1	92.9	92.8
Glass and glassware	39.53	40.04	40.65	40.6	41.1	41.7	97.4	97.5	97.7
Glass products made from purchased glass	35.01	35.79	36.37	42.5	43.5	44.4	82.2	82.3	81.9
Cement	46.43	45.41	44.38	48.0	47.8	47.2	96.6	94.9	94.0
Brick, tile, and terra cotta	35.79	35.60	35.17	42.7	43.4	42.3	82.8	81.5	82.5
Pottery and related products	36.13	37.09	37.34	40.0	41.5	41.5	90.9	90.8	91.3
Gypsum	45.97	45.70	43.61	49.0	48.9	46.2	93.9	93.5	94.3
Lime	40.41	40.28	38.46	48.6	48.6	47.9	82.0	80.8	79.5
Marble, granite, slate, and other products	41.84	41.90	40.45	44.1	44.6	44.3	95.5	93.6	91.7
Abrasives	48.40	50.55	49.43	47.6	48.3	48.1	101.8	104.6	102.8
Asbestos products	48.91	48.75	46.77	47.9	48.0	46.6	102.2	101.6	100.4

See footnotes at end of table.

TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average hourly earnings ¹		
	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945
<i>Nondurable goods</i>									
Textile-mill products and other fiber manufactures.....	\$31.54	\$31.69	\$30.38	41.3	41.8	40.7	76.3	75.9	74.5
Cotton manufactures, except smallwares.....	29.38	29.01	27.76	41.7	42.0	41.3	70.5	69.2	67.3
Cotton smallwares.....	35.60	36.58	34.52	43.9	43.9	42.4	81.4	83.5	81.5
Silk and rayon goods.....	31.41	31.38	29.84	41.8	42.0	40.7	75.1	74.7	73.2
Woolen and worsted manufactures, except dyeing and finishing.....	36.39	36.93	35.38	41.9	42.3	40.7	86.9	87.3	86.9
Hosiery.....	28.81	30.13	28.87	36.5	38.1	36.9	78.9	79.1	78.1
Knitted cloth.....	33.66	34.03	32.94	43.1	43.8	42.3	78.1	77.9	77.9
Knitted outerwear and knitted gloves.....	30.81	32.25	31.29	39.3	39.5	38.8	78.1	81.3	80.1
Knitted underwear.....	27.76	27.97	27.39	39.7	40.6	39.5	69.5	69.1	69.0
Dyeing and finishing textiles, including woolen and worsted.....	35.75	35.80	34.33	44.4	45.0	43.7	80.4	79.5	78.6
Carpets and rugs, wool.....	40.82	41.70	38.76	42.8	43.6	40.5	95.5	96.0	95.7
Hats, fur-felt.....	43.24	42.91	43.99	41.2	38.9	39.6	108.2	109.3	110.0
Jute goods, except felts.....	34.50	35.21	35.26	43.9	44.5	44.5	78.5	79.1	79.2
Cordage and twine.....	34.42	34.75	33.87	44.6	45.1	44.7	77.0	76.8	75.7
Apparel and other finished textile products.....	30.34	31.24	30.81	36.6	37.2	36.4	82.8	84.0	84.7
Men's clothing, not elsewhere classified.....	33.32	34.38	32.89	37.2	38.4	37.2	89.1	89.4	88.2
Shirts, collars, and nightwear.....	25.35	25.60	25.45	36.8	36.9	36.5	68.8	69.5	69.8
Underwear and neckwear, men's.....	27.42	28.09	27.34	36.8	37.7	36.2	73.9	73.8	75.5
Work shirts.....	20.27	20.93	20.52	35.6	36.3	35.6	56.9	57.5	57.7
Women's clothing, not elsewhere classified.....	36.71	38.14	38.81	35.0	35.6	35.3	102.6	104.6	107.3
Corsets and allied garments.....	30.14	31.48	30.51	40.4	40.7	39.5	74.9	77.5	77.3
Millinery.....	38.88	33.99	29.75	32.4	29.7	27.0	99.0	94.4	92.6
Handkerchiefs.....	24.08	25.03	25.11	35.9	37.5	37.4	66.8	66.7	66.9
Curtains, draperies, and bedspreads.....	26.76	28.69	28.10	37.1	37.0	37.1	72.0	76.7	75.0
Housefurnishings other than curtains, etc.....	31.47	32.10	31.94	39.5	40.5	39.3	78.8	79.1	81.2
Textile bags.....	29.94	30.12	29.96	41.0	41.3	41.1	73.0	73.0	72.9
Leather and leather products.....	35.46	36.13	34.69	41.7	42.1	40.4	85.0	85.7	85.9
Leather.....	44.77	45.00	45.02	46.0	46.1	46.1	97.6	97.4	97.9
Boot and shoe cut stock and findings.....	34.72	35.70	34.84	42.2	42.7	41.7	83.0	84.5	84.1
Boots and shoes.....	34.00	34.74	32.72	41.1	41.5	39.2	82.3	83.2	83.0
Leather gloves and mittens.....	30.22	31.08	30.50	36.8	37.9	36.6	82.4	82.0	83.6
Trunks and suitcases.....	34.40	35.27	35.80	40.3	41.0	40.8	84.0	84.2	86.0
Food.....	39.78	39.91	38.96	45.5	45.5	44.5	87.4	87.7	87.4
Slaughtering and meat packing.....	45.03	45.68	42.74	47.7	48.0	45.7	94.5	95.3	93.7
Butter.....	36.79	36.29	35.04	48.4	48.6	46.7	75.1	73.4	74.1
Condensed and evaporated milk.....	41.18	41.24	39.93	53.3	53.7	51.5	77.2	76.8	77.5
Ice cream.....	41.24	39.88	39.17	49.0	46.8	45.2	81.8	82.2	82.6
Flour.....	45.32	44.59	43.78	50.9	50.5	49.5	89.1	88.5	88.5
Cereal preparations.....	46.15	47.08	46.01	47.2	47.5	46.7	97.8	99.0	98.5
Baking.....	40.15	39.37	38.82	46.3	45.8	45.2	87.0	86.1	85.8
Sugar refining, cane.....	37.20	37.41	38.78	43.3	43.5	45.6	85.8	85.9	85.0
Sugar, beet.....	39.47	39.25	37.86	37.9	39.3	39.1	104.2	99.9	96.8
Confectionery.....	30.75	31.85	31.37	40.6	41.7	40.8	75.9	76.4	76.9
Beverages, nonalcoholic.....	37.31	35.92	35.48	45.3	44.3	43.5	83.0	81.4	81.5
Malt liquors.....	55.47	54.39	52.03	47.3	46.6	45.1	116.8	115.5	114.9
Canning and preserving.....	32.16	31.69	31.72	40.9	39.6	39.4	78.2	79.8	81.1
Tobacco manufactures.....	30.85	32.36	31.04	41.1	42.8	41.6	75.1	75.7	74.7
Cigarettes.....	34.62	35.18	33.05	42.9	43.6	41.8	80.7	80.7	79.1
Cigars.....	27.18	30.31	29.78	39.2	42.3	41.7	69.7	71.6	71.4
Tobacco (chewing and smoking) and snuff.....	28.53	28.90	27.91	40.2	41.1	40.3	70.4	70.3	69.2
Paper and allied products.....	40.81	40.80	39.77	46.3	46.4	45.4	88.1	87.9	87.6
Paper and pulp.....	44.26	44.30	43.14	48.5	48.8	47.8	91.3	90.6	90.2
Envelopes.....	37.44	38.04	37.88	44.6	44.8	44.5	83.9	84.9	85.2
Paper bags.....	36.49	35.07	34.60	44.3	42.9	42.2	82.9	82.0	82.3
Paper boxes.....	36.70	36.35	35.48	43.9	43.4	42.6	83.7	83.7	83.3
Printing, publishing, and allied industries.....	46.69	46.95	46.63	41.5	41.6	41.2	112.4	112.7	113.3
Newspapers and periodicals.....	50.60	50.74	51.09	38.8	38.8	39.0	129.6	128.9	129.1
Printing, book and job.....	45.07	45.01	44.65	42.9	42.9	42.1	104.7	105.4	106.4
Lithographing.....	48.57	50.13	49.36	44.4	45.2	44.6	109.3	110.8	110.6

See footnotes at end of table.

TABLE 6.—Earnings and Hours in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

Industry	Average weekly earnings ¹			Average weekly hours ¹			Average hourly earnings ¹		
	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945	July 1945	June 1945	May 1945
<i>Nondurable goods—Continued</i>									
Chemicals and allied products.....	\$44.90	\$45.20	\$45.26	45.1	45.4	45.7	Cents 99.9	Cents 99.7	Cents 99.0
Paints, varnishes, and colors.....	48.10	48.63	47.30	48.0	48.1	47.3	99.8	100.7	100.3
Drugs, medicines, and insecticides.....	35.43	36.68	36.69	41.9	43.1	43.3	84.1	85.3	85.0
Soap.....	47.02	48.07	48.15	47.9	47.9	47.8	98.2	100.4	100.7
Rayon and allied products.....	40.87	40.71	40.66	43.2	43.2	43.2	94.3	94.2	94.0
Chemicals, not elsewhere classified.....	54.06	54.23	54.03	47.0	47.2	47.3	114.7	114.9	114.1
Explosives and safety fuses.....	48.00	46.92	47.91	44.9	44.5	45.6	106.9	105.5	105.0
Ammunition, small-arms.....	44.29	45.55	46.57	44.8	45.8	46.5	98.9	99.4	100.1
Cottonseed oil.....	27.03	28.35	28.57	46.7	48.5	50.2	58.1	58.1	56.9
Fertilizers.....	33.66	32.42	32.02	46.2	45.3	45.9	72.9	71.6	69.7
Products of petroleum and coal.....	58.19	57.72	57.24	47.7	47.8	47.5	121.9	120.7	120.4
Petroleum refining.....	60.55	59.89	59.80	47.4	47.6	47.5	128.1	126.6	126.5
Coke and byproducts.....	51.99	51.57	50.64	48.3	47.9	47.8	109.0	107.9	106.0
Roofing materials.....	47.56	48.28	46.82	49.2	49.7	48.2	96.6	97.2	97.1
Rubber products.....	51.79	51.43	50.00	45.5	45.1	44.2	113.9	114.0	113.2
Rubber tires and inner tubes.....	59.59	59.20	57.32	46.0	45.3	44.6	129.6	130.7	128.4
Rubber boots and shoes.....	42.70	42.60	41.32	45.4	45.5	43.6	94.1	93.7	94.8
Rubber goods, other.....	43.87	43.41	42.68	44.9	44.9	43.9	97.6	96.7	97.3
Miscellaneous industries.....	43.22	44.81	44.40	44.0	45.2	44.8	98.2	99.2	99.2
Instruments (professional and scientific) and fire-control equipment.....	51.12	50.02	54.11	44.0	47.5	47.1	116.5	118.2	114.8
Planos, organs, and parts.....	47.19	47.81	46.37	45.8	46.5	45.2	103.6	103.3	103.0

NONMANUFACTURING

Mining:							Cents	Cents	Cents
Anthracite.....	\$47.47	\$47.48	\$38.10	39.4	41.1	36.4	121.9	117.0	103.9
Bituminous coal.....	50.70	50.04	53.75	40.8	46.0	42.4	125.1	128.1	125.6
Metal.....	45.64	47.43	46.69	43.9	45.4	45.0	103.9	104.5	103.8
Quarrying and nonmetallic.....	43.06	42.26	41.52	48.1	48.2	47.2	89.6	88.1	87.9
Crude-petroleum production.....	54.40	54.84	54.08	45.0	46.3	46.1	120.9	118.4	117.2
Public utilities:									
Telephone.....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Telegraph.....	37.98	38.40	38.35	46.0	46.2	45.7	82.6	83.3	83.9
Electric light and power.....	50.34	50.59	50.26	43.4	44.4	44.5	114.6	113.6	113.2
Street railways and buses.....	51.21	51.34	50.36	51.6	52.2	51.7	97.9	97.0	96.5
Trade:									
Wholesale.....	44.92	44.13	43.83	43.1	42.8	42.9	103.7	102.7	101.8
Retail.....	29.34	28.46	27.56	41.9	40.6	39.4	77.5	77.0	76.4
Food.....	34.89	33.59	32.19	43.0	41.8	40.1	76.5	76.1	75.5
General merchandise.....	24.30	23.60	22.63	38.4	36.7	35.0	63.6	63.8	63.4
Apparel.....	31.55	29.73	28.90	38.4	37.2	36.2	83.1	82.0	81.0
Furniture and housefurnishings.....	40.21	39.52	39.46	44.2	44.3	43.6	91.3	89.7	90.5
Automotive.....	44.05	43.43	42.55	46.6	46.4	45.6	95.0	94.5	94.4
Lumber and building materials.....	38.86	38.64	38.40	43.7	43.4	43.1	90.8	90.5	90.2
Hotels (year-round) ⁴	24.40	24.43	24.03	44.0	44.3	44.3	54.4	54.1	53.2
Power laundries.....	29.06	28.76	28.64	44.0	43.4	43.4	66.5	66.6	66.2
Cleaning and dyeing.....	33.37	33.50	32.66	44.2	43.8	43.0	76.6	77.3	76.5
Brokerage.....	64.23	66.15	66.40	(2)	(2)	(2)	(2)	(2)	(2)
Insurance.....	48.11	47.66	46.71	(2)	(2)	(2)	(2)	(2)	(2)
Private building construction.....	55.58	55.50	53.64	40.1	40.4	39.3	138.7	137.4	136.6

¹ These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a slightly smaller sample than are weekly earnings. Data for the current and immediately preceding months are subject to revision.

² Not available.

³ Excludes messengers and approximately 6,000 employees of general and divisional headquarters and of cable companies.

⁴ Cash payments only; additional value of board, room, and tips, not included.

Labor Force, August 1945

SEASONAL declines of 750,000 in employment and 120,000 in unemployment combined to reduce the civilian labor force to a total of 54,350,000 in August 1945, according to the Bureau of the Census Monthly Report on the Labor Force. The total labor force (including members of the armed forces) numbered 65,510,000 at the close of World War II (August 5-11).

The drop in the volume of unemployment occurred almost entirely among 14 to 19 year olds. Many youngsters on school vacation who were unemployed in July found jobs or left the labor force by August. Unemployment among older workers did not increase significantly during the month. It should be borne in mind, however, that the census week preceded the war's end, so that the unemployment figure does not reflect the mass lay-offs from war plants following the surrender of Japan.

The decline in employment was the net result of divergent movements in farm and nonfarm employment. Agricultural employment declined by 790,000 from the July seasonal peak, as farming activity slackened in many areas. Nonagricultural employment showed a slight increase of 40,000 between July and August—a drop of 130,000 among women being more than offset by a gain of 170,000 among men. The decline among women reflects releases from war industries; the increase among men reflects the return of war veterans to civilian employment.

Note.—In July 1945, the Census Bureau adopted an improved interviewing procedure for obtaining the information on the activity of the civilian population which constitutes the basis for the monthly estimates. This procedure will provide a more accurate count of persons in the labor force and, therefore, more accurate estimates of employment and unemployment.

The estimates for July, published in the September issue of the Monthly Labor Review, were based on the old interviewing procedure, and are comparable with figures for previous dates. The July estimates shown in the accompanying table, although referring to the same census week, are based on a second enumeration in which the new procedure was used and are therefore comparable with the August figures. In July, the new technique resulted in a larger estimate of employment than the old, and a slightly smaller estimate of unemployment.

Technical readers should refer to the Census release MRLF-No. 39, September 20, 1945, for a more complete statement as to the nature of the revision and its effects. The Census Bureau expects to revise the estimates for the months prior to July on the basis of the information available for July 1945 and the data obtained in earlier tests made in January and April 1945.

Industries—

Average hourly
earnings¹June
1945May
1945

Cents

Cents

99.7

100.7

85.3

100.4

94.2

114.9

105.5

99.4

58.1

71.6

120.7

126.6

107.9

97.2

14.0

30.7

93.7

96.7

90.2

18.2

03.3

7.0

28.1

4.5

8.1

8.4

3.3

3.6

7.0

2.7

7.0

3.1

8.8

2.0

7.7

1.5

1.5

1

6

3

(2)

(2)

4

136.6

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Total Labor Force in the United States, Classified by Employment Status, Hours Worked, and Sex, July and August 1945

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over ¹					
	Total, both sexes		Male		Female	
	July	August	July	August	July	August
Total labor force ²	67,500	66,510	47,150	46,910	20,350	19,600
Civilian labor force.....	55,220	54,350	35,140	35,020	20,080	19,330
Unemployment.....	950	830	480	430	470	400
Employment.....	54,270	53,520	34,660	34,590	19,610	18,930
Nonagricultural.....	44,430	44,470	27,530	27,700	16,900	16,770
Worked 35 hours or more.....	37,190	36,910	24,430	24,300	12,760	12,610
Worked 15-34 hours.....	3,150	3,290	1,320	1,520	1,830	1,770
Worked 1-14 hours ³	1,140	1,090	380	370	760	720
With a job but not at work ⁴	2,950	3,180	1,400	1,510	1,550	1,670
Agricultural.....	9,840	9,050	7,130	6,890	2,710	2,160
Worked 35 hours or more.....	7,810	6,770	6,330	5,880	1,480	890
Worked 15-34 hours.....	1,710	1,790	600	600	1,110	1,190
Worked 1-14 hours ³	180	240	100	130	(*)	110
With a job but not at work ⁴	140	250	100	190	(*)	(*)

¹ Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution; those under 100,000 are not presented in the tables but are indicated by an asterisk (*). All data exclude persons in institutions.

² Total labor force consists of the civilian labor force and the armed forces. Estimates of the armed forces during the census week are projected from data on net strength as of the first of the month.

³ Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

⁴ Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Recent Publications of Labor Interest

October 1945

Cooperative Movement

Agricultural cooperatives in the postwar period. Washington, U. S. Department of Agriculture, Inter-Bureau Committee on Postwar Programs, 1945. 41 pp.; processed.

Summarizes the present situation of agricultural cooperation in the United States, analyzes the possibilities for cooperation as regards the various types of associations and in the various commodity fields, and suggests procedure for determining cooperative prospects (through community analysis and study of types of cooperatives needed and of existing associations).

American cooperatives, yesterday—today—tomorrow. By John Daniels. New York, New Leader Publishing Association, 1945. 39 pp., illus. 25 cents.

Friendly critique of cooperatives in the United States. Topics covered include native origin, "grass roots" growth, urban stores, expanding frontiers, over-all trends, and future prospects.

The cooperative movement in South America. (In *American Teacher*, Chicago, April 1945, pp. 21, 22; May 1945, pp. 21-23. 35 cents each.)

These articles, prepared by the Office of the Coordinator of Inter-American Affairs, tells briefly the extent of the cooperative movement in the various South American countries.

Cooperative reorganization. By Ronald Matthews. (In *Cooperative Review*, Manchester, England, February 1945, pp. 22, 23. 3d. net.)

Points out some of the lacks in the British cooperative movement, and some of the problems that must be faced in the postwar period if the movement is to hold its own.

Report of the Irish Agricultural Organization Society, Ltd., for the year ending December 31, 1944. Dublin, [1945]. 82 pp. 2s. net.

Contains statistics of the various types of agricultural cooperatives for the year 1943.

Education and Training

Labor and education in 1944. Washington, American Federation of Labor, 1945. 34 pp.

Reports of executive council of A. F. of L., and Workers Education Bureau of America (New York), at annual convention of A. F. of L., New Orleans, La., November 1944.

Manual of policies and procedures, [Oregon Vocational Rehabilitation Service]. Salem, State Board of Education, Division of Vocational Education, Vocational Rehabilitation Service, 1944. 46 pp.; mimeographed.

National apprenticeship and training standards for the electrical industry. Washington, U. S. War Manpower Commission, Bureau of Training, Apprentice-Training Service, 1945. 32 pp.

Revision and extension, to meet the changing character of the electrical industry, of standards issued in August 1941.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.

Government vocational training scheme. London, Ministry of Labor and National Service, 1945. 6 pp.

Simple explanation of the training scheme, eligibility for training, and allowances during the courses.

La preparación para el trabajo y el aprendizaje en la legislación Española. By José Toharia Cátedra. (In *Revista de Trabajo*, Ministerio de Trabajo, Madrid, January 1945, pp. 29-36.)

Deals with Spanish legislation, from 1924 through March 1944, with respect to apprenticeship schools; training on the job; duration of apprenticeship; wages, hours, and vacations of apprentices; and other pertinent information.

Handicapped Workers

Industrial rehabilitation. New York, American Museum of Safety and New York University Center for Safety Education, 1945. 91 pp. 35 cents.

Series of articles in digest form on programs, in both large and small industries, for industrial rehabilitation of the disabled, each program being described by its director.

The psychological aspects of the problem of vocational preparation and rehabilitation of mentally and physically handicapped civilians. By J. E. Wallace Wallin. (In *American Journal of Mental Deficiency*, Albany, N. Y., January 1945, pp. 290-299. \$1.50.)

Considers the new field of vocational rehabilitation of the civilian mentally handicapped, made possible under the Barden-La Follette Act of July 1943; notes the great variety of wartime employments opened up to the disabled through job analysis; and looks to the techniques of occupational testing developed by the War Department and war industries for aid in the movement.

Vocational rehabilitation for disabled persons in California. By Harry D. Hicker. Sacramento, California State Department of Education, 1944. 49 pp., illus. (Bulletin, Vol. XIII, No. 4.) Rev. ed.

Description of the program in action, with emphasis on types of services and placement of the handicapped, and a statistical summary. The number of disabled men and women rehabilitated into employment was 1,944 in 1941-42, a year selected as typical of the service under normal conditions; in 1942-43, the number was over 3,000, due to the demand for workers in war industries.

Housing

Report of the National Capital Housing Authority for the ten-year period, 1934-44. Washington, 1944. 219 pp., map, diagrams, illus.

Reviews operations and objectives of the Authority and problems that must be dealt with in the future. Appendixes give data on rents, low-rent housing needs, and other topics.

Tenth annual report of New York City Housing Authority, 1944. New York, 1945. 121 pp., plans, illus.

Statistical review of operations and of plans for postwar projects.

An appraisal method for measuring the quality of housing: A yardstick for health officers, housing officials, and planners—Part 1, Nature and uses of the method. New York, American Public Health Association, Committee on the Hygiene of Housing, 1945. 71 pp., maps, illus. \$1.

Rebuilding Britain—a twenty-year plan. By E. D. Simon. London, Victor Gollancz, Ltd., 1945. 256 pp., charts, illus. 6s.

Stresses the need for advance planning as essential to rehousing the people in "healthy homes" from which work and recreation are easily accessible. Examples of successful planning in other countries are cited.

Twelve in search of a house—a symposium. London and Letchforth, J. M. Dent & Sons, Ltd., 1944. 39 pp. (Design for Britain, second series, No. 37.) 6d. net.

Twelve points of view are voiced as to requirements that should be met in supplying living quarters. They vary from the wants of an agricultural laborer to those of an elderly woman.

Industrial Accidents and Accident Prevention

Coke-oven accidents in the United States, calendar year 1943. By W. W. Adams and V. E. Wrenn. Washington, U. S. Department of the Interior, Bureau of Mines, 1945. 20 pp., chart. (Technical paper No. 675.) 10 cents, Superintendent of Documents, Washington.

Accident experience, iron-ore mines, Lake Superior district, 1940-43. By Frank E. Cash and Reuben D. Larsen. Washington, U. S. Department of the Interior, Bureau of Mines, 1945. 9 pp.; mimeographed. (Information circular No. 7321.)

Fatal work injuries in shipyards, 1943 and 1944. Washington, U. S. Bureau of Labor Statistics, 1945. 17 pp. (Bull. No. 839; reprinted from Monthly Labor Review, July 1945, with additional data.) 10 cents, Superintendent of Documents, Washington.

National fire codes for the prevention of dust explosions, 1944. Boston, National Fire Protection Association, [1944?]. 176 pp., diagrams. \$1, paper cover; \$2, cloth cover.

Incorporates new and revised codes adopted by the Association at its 1944 annual meeting.

Fabricated structural steel industry: The control of accidents; Organizing for safety; Safety guide for workers; The Supervisor's safety guide. Washington, U. S. Department of Labor, Division of Labor Standards, 1945. 4 pamphlets, 14, 6, 11, 6 pp., respectively; processed. Free.

The woodworking supervisor's safety guide. Washington, U. S. Department of Labor, Division of Labor Standards, 1945. 6 pp.; processed. Free.

Industrial Hygiene

Ammonia. Chlorine. Washington, U. S. Department of Labor, Division of Labor Standards, 1945. 2 leaflets, 12 and 14 pp.; bibliographies. (Controlling chemical hazards series, Nos. 1 and 2.) 5 and 10 cents, Superintendent of Documents, Washington.

First of a series of leaflets outlining the hazards involved in industrial use of specific chemicals, and methods of control.

Hydrogen sulfide poisoning as a hazard in the production of oil. By Sara J. Davenport. Washington, U. S. Department of the Interior, Bureau of Mines, 1945. 10 pp.; mimeographed. (Information circular No. 7329.)

Industrial health and safety—some suggestions to organized labor. Washington, U. S. War Production Board, Office of Labor Production, 1945. 18 pp., bibliography.

Embodies a plan sponsored by the War Production Board for the organization of health and safety programs under labor-management committees in war production plants. Appendixes outline the intensive industrial safety course offered in colleges, etc., under the ESMWT (Engineering, Science, and Management War Training) program and list suggested material for trade-union libraries.

Industrial toxicology. By Donald Hunter, M.D. Oxford, England, Clarendon Press, 1944. 80 pp., bibliography. \$3.50.

Lectures on harmful chemical substances, used principally in British industrial processes, with descriptions of symptoms which they induce in the workers.

The dermatologist and the [Massachusetts] Industrial Accident Board. By John Godwin Downing, M.D. (In Industrial Medicine, Chicago, August 1945, pp. 655, 656, et seq. 50 cents.)

Describes procedures in hearings before the Board and the writer's experience in cases seeking compensation for industrial dermatitis.

Industry Reports

Apparel manufacturing in California. Sacramento, State Reconstruction and Reemployment Commission, 1945. 78 pp., charts; mimeographed.

Contains a brief history of apparel manufacturing, a description of the status of the industry in the United States and in California, and a discussion of problems and of factors connected with development of the industry in California.

Automobiles in the postwar economy. By Frank P. Huddle. Washington (1013 Thirteenth Street NW.), Editorial Research Reports, 1945. 13 pp. (Vol. II, 1945, No. 8.) \$1.

The author discusses the removal of restrictions on the manufacture of automobiles and the adoption of production plans by the industry. Various estimates are summarized relating to the probable postwar production of automobiles in terms of number of units, expenditures, and employment. Other subjects discussed include indirect effects of resumption of automobile production.

Financial position of coal-mining industry: Coal charges account. London, Ministry of Fuel and Power, 1945. 37 pp. (Cmd. 6617.) 9d. net, His Majesty's Stationery Office, London.

Detailed accounting of the Government's operational control of the coal-mining industry, showing financial arrangements and costs in stabilizing the industry during the war emergency.

The problem of the coal mines. By Sir Richard A. S. Redmayne. London, Eyre & Spottiswoode, 1945. 60 pp. 4s. 6d. net.

Intended to supply information for the general public on the position of the coal industry down to 1944, the book covers pertinent legislation, mechanization of the collieries, position of the workers, and suggestions for the future conduct of the industry.

Red cedar shingles. Washington, U. S. Tariff Commission, 1945. 47 pp.; processed. (War changes in industry series, report No. 8.)

One of a series of reports on domestic industries affected favorably or unfavorably by the war, with discussions of the probable postwar status of such industries with respect to foreign trade and international competition. The report on the red-cedar shingles industry includes accounts of labor conditions, legislation affecting labor, labor organizations, and industrial relations in the United States and Canada.

Wartime employment, production, and conditions of work in shipyards. Washington, U. S. Bureau of Labor Statistics, 1945. 60 pp., bibliography. (Bull. No. 824.) 10 cents, Superintendent of Documents, Washington.

Includes data on absenteeism, labor turn-over, wages, and working hours.

Economic issues in textiles—a challenge to research. By Hiram S. Davis. Philadelphia, University of Pennsylvania, Wharton School of Finance and Commerce, Industrial Research Department, 1945. 32 pp. (Research report No. 9.) 50 cents.

Several basic issues in the textile industries are discussed. These include prices, wage rates, capital returns, production costs, markets, and distribution costs. The author states that the goal of research should be to promote a maximum of economic progress with a minimum of economic instability.

International Labor Conference

International Labor Conference, twenty-seventh session, Paris, 1945: Report I, Director's report. Report II, The maintenance of high levels of employment during the period of industrial rehabilitation and reconversion. Report III, Protection of children and young workers (first discussion). Report IV, Matters arising out of the work of the constitutional committee—part 1, The relationship of the ILO to other international bodies; part 2, Revision of the form and arrangement of the standing orders of the Conference. Report V, Minimum standards of social policy in dependent territories (supplementary provisions). Report VI, Reports on the application of conventions (article 22 of the constitution [of the ILO]). Montreal, International Labor Office, 1945. Various pages. Reports I and II, \$1 each; III, \$1.25; IV, part 1, \$1, part 2, 35 cents; V, 60 cents; VI, \$1; set, \$5. Distributed in the United States by Washington Branch of ILO.

Labor Legislation

Provincial [Canadian] labor standards concerning child labor, hours of work, minimum wages, and workmen's compensation. Ottawa, Department of Labor of Canada, June 1945. 10 pp.; mimeographed.

Ordenamiento de las leyes obreras Argentinas. By Alejandro M. Unsain. Buenos Aires, Editorial Losada, S. A., 1943. 106 pp. (Academia de Ciencias Económicas, ediciones especiales, No. 2.)

Labor laws in force in Argentina in 1943 are arranged under the following subjects: Labor contracts, hygiene and security, industrial accidents and occupational illnesses, work of women and minors, regulations relevant to particular occupations, workers' organizations, administrative agencies, and penalties for infractions of the laws.

Leyes sociales de Bolivia. [La Paz], Ministerio del Trabajo, Salubridad y Previsión Social, 1945. 162 pp.

The laws cover such items as minimum wages, recognition of workers' organizations, wages for night work, workmen's compensation, and retirement pay.

Venezuelan labor law of 1936, regulations of the labor law, decree on profit sharing (1943). English translation by Gilbert Grace Cover. [Caracas, American Book Shop, Edificio Vercoes], 1945. 212 pp. 18 bolivares.

Amendments to the 1936 labor law were published in the *Gaceta Oficial de los Estados Unidos de Venezuela*, Caracas, May 10, 1945.

Labor Organizations and Conferences

American labor unions, what they are and how they work. By Florence Peterson. New York, Harper & Bros., 1945. 338 pp., bibliography, charts. \$3.

After summarizing the development of labor organizations in the United States, the author describes the structure, rules and qualifications for membership, government, and finances of the unions and the federated bodies; educational and beneficial activities; methods of collective bargaining; and adjustment of disputes through government action. A glossary of labor terms, a list of unions by industry, statistics of union membership, and other pertinent data are included.

The A. F. of L. and one world of labor: The report of an observer at the World Trade Union Conference at London, February 1945. By Courtney Ward. Cleveland, Ohio, Brotherhood of Painters, Decorators and Paperhangers, District Council No. 6, 1945. 31 pp., illus. 5 cents.

Labor in the New Deal decade. By Selig Perlman. New York, International Ladies' Garment Workers' Union, 1945. 36 pp.

Brief but searching analysis of the development and problems of the American labor movement during the decade of the New Deal influence.

The labor movement in France since the liberation. By Paul Vignaux. (In *International Postwar Problems*, New York, July 1945, pp. 293-307. \$1.)

Discussion of the existing labor federations, their political and international position, and their relation to the State.

Trade unions in Russian industrial life. By Solomon M. Schwarz. (In *International Postwar Problems*, Quarterly Review of the American Labor Conference on International Affairs, New York, July 1945, pp. 320-339. \$1.)

The writer describes the changes in the main activities of the Russian trade unions under the Soviet regime. He points out that the unions have lost their collective-bargaining functions and have become instruments for implementing government production and other policies.

The organization of salaried employees in Sweden. By Otto Nordenskiöld. (In *International Labor Review*, Montreal, July 1945, pp. 39-46. 50 cents. Distributed in United States by Washington Branch of ILO.)

Medical Care and Sickness Insurance

American medical practice in the perspectives of a century. By Bernhard J. Stern. New York, Commonwealth Fund, 1945. 156 pp. \$1.50.

Sociological approach to medical care, including consideration of implications of growth of specialization; supply and distribution of doctors, with data on their incomes and patient load; and distribution of medical services.

Over the horizon in public health. By Thomas Parran, M.D. (In Public Health Reports, Federal Security Agency, U. S. Public Health Service, Washington, April 27, 1945, pp. 457-464. 10 cents, Superintendent of Documents, Washington.)

Address of Surgeon General, U. S. Public Health Service, at dedication of Health Institute of the United Automobile Workers, C. I. O., at Detroit, January 19, 1945. Outlines the many aspects of our national health problems, especially in the field of medical care and industrial hygiene, and describes the steps to be taken toward a comprehensive national health program under Federal leadership.

Prepaid medical care: Medical service and indemnity plans sponsored by county and State medical societies. (In Journal of the American Medical Association, Chicago, August 18, 1945, pp. 1173-1177. 25 cents.)

Summary data on 23 plans as to membership, certain aspects of eligibility (including income ceiling), charges, benefits, financial status, legal authority, etc.

Public medical care—principles and problems. By Franz Goldmann, M.D. New York, Columbia University Press, 1945. 226 pp., bibliography. \$2.75.

Comprehensive evolutionary analysis and appraisal of public policy and systems of caring for the sick in the United States (against experience in other countries), with emphasis on methods of support. Part I covers haphazard growth. Part II, on directed growth, presents chapters on planning for hospitals and related facilities, for organization of professional services, for payments for facilities and services, and for administration of medical care. The author points out that some 30 countries have adopted the combination of compulsory insurance and taxation for organized payment for medical care.

What farm families spend for medical care. By Jean L. Pennock and Grace M. Angle. Washington, U. S. Department of Agriculture, Bureau of Human Nutrition and Home Economics, 1945. 18 pp., charts. (Department of Agriculture miscellaneous publication No. 561.) 10 cents, Superintendent of Documents, Washington.

Deals with medical-care expenditures in 1941, at various income levels, effect of such expenditures on individual farm families, and rural-urban differences in costs of medical care. The data were collected as part of a study, made in cooperation with the U. S. Bureau of Labor Statistics, of family spending and saving in wartime.

Health insurance in America: Addresses, second national conference on social security sponsored by Chamber of Commerce of the United States, January 1945. Washington 6, Chamber of Commerce of the U. S. A., 1945. 72 pp.

Report of the national health survey conducted by Canadian Medical Procurement and Assignment Board. Ottawa, [Medical Procurement and Assignment Board?], 1945. xxviii, 336 pp., charts, maps.

Survey of existing medical-care and hospital facilities in Canada, including industrial and war medical services.

Occupations

Twenty careers of tomorrow. By Darrell and Frances Huff. New York, McGraw-Hill Book Co., Inc., 1945. 281 pp., illus. \$2.50.

Dietetics as a profession. Chicago, American Dietetic Association, 1944. 35 pp., illus.

Farm opportunities? Prospects, problems, policies. Washington, U. S. Department of Agriculture, Interbureau Committee on Postwar Agricultural Programs, Land Settlement Work Group, 1945. 22 pp.; processed.

Orthoptics as an opening for girls. (In *Journal of Careers*, London, May-June 1945, pp. 103-105. 1s. 6d. net.)

Cites the increased job opportunities for girls who become expert in orthoptic treatment—a form of scientific eye exercises. The training period is said to be reasonably short.

Employment opportunities in public health. New York, American Public Health Association, 1945. 30 pp. Free.

Old-Age Pensions

Retirement report, fiscal year ended June 30, 1944, Civil Service Retirement Act, Canal Zone Retirement Act, Alaska Railroad Retirement Act. Washington, U. S. Civil Service Commission, Retirement Division, 1945. 48 pp., charts. Includes medical statistics for the civil-service system.

Retirement system of the Federal Reserve Banks—eleventh annual report, for the fiscal year ended February 28, 1945. New York, Board of Governors of the Federal Reserve System, 1945. 38 pp.

Statistics of State and local teacher retirement systems, 1943-44. Washington, National Education Association of the United States, 1945. 55 pp. (Research bull., Vol. XXIII, No. 2.) 25 cents.

106 retirement plans, 1944-45. New York, Bankers Trust Co., 1945. 27 pp.

Each retirement plan is shown in tabular form by nature of company business, conditions of eligibility, number of employees originally eligible, employee contribution, vested right of employee in company contribution, funding method, and pension benefits (including primary social-security benefits) as a percentage of average annual compensation.

Retirement plans for trade associations. Washington, American Trade Association Executives, 1945. 103 pp. \$1.50.

Analysis of 15 recent plans in use, and a suggested plan, by subjects—eligibility, contribution by employees and by association, absences, termination of employment, types and amounts of benefits, beneficiaries, administration, etc.

Postwar Reconstruction

Outline of plans made for the reconversion period. Washington, 1945. 145 pp. (House doc. No. 282, 79th Cong., 1st sess.) 25 cents, Superintendent of Documents, Washington.

This document includes the message of the President of the United States to the Congress, September 6, 1945; a report to the President from the Director of War Mobilization and Reconversion, entitled "The transition, phase one"; and a report to the President by the Attorney General concerning the limitation, suspension, or termination of emergency, national defense, and war legislation.

The President gave particular attention in his message to matters of labor interest, among them being unemployment compensation, the minimum wage under the Fair Labor Standards Act, labor disputes and wage stabilization, continuation of the Fair Employment Practice Committee, extension of U. S. Employment Service, housing, and provisions for veterans and their dependents.

Labor and tomorrow's world. By G. Bromley Oxnam. New York, Abingdon-Cokesbury Press, 1945. 153 pp. \$1.50.

Lectures outlining the points of view of trade-unionists, socialists, and communists, and discussing the relationship of Christianity to the labor movement. The author states that he dealt primarily with labor in these lectures because he is "convinced that tomorrow's world is to be labor's world."

Postwar economic policy and planning: Postwar public works and construction. Seventh report of the House [of Representatives] Special Committee on Postwar Economic Policy and Planning, pursuant to H. Res. 60 * * *. Washington, Government Printing Office, 1945. 37 pp., charts. (Union calendar No. 252, House report No. 852, 79th Cong., 1st sess.)

Problems of the peace: IV, The middle class. By Lewis Corey. (In *Antioch Review*, Vol. 5, No. 1, Yellow Springs, Ohio, spring 1945, pp. 68-87. 75 cents.)

Statistics of groups classified as comprising the middle class, the working class, farmers, and upper bourgeoisie are given on the basis of data from Census publications dealing with occupations and the labor force. The basis and importance of understanding and unity of action among members of the middle class, the working class, and the farm group are discussed. Their major common interests, the author states, are the avoidance of depression and the working out of a basic program of reconstruction for democracy in the economic field in opposition to control by private monopoly.

Time for planning: A social-economic theory and program for the twentieth century. By Lewis L. Lorwin. New York, Harper & Bros., 1945. xxii, 273 pp. \$3.

Collection of papers written during the past fourteen years, three of them not previously published. The author describes planning as a general process of conceiving the ends, discovering the best methods of attaining them, and adjusting means to ends. Three of the chapters deal with the relations of labor to planning, both nationally and in the international field.

Prices and Price Control

Price and related controls in the United States. By Seymour E. Harris. New York, McGraw-Hill Book Co., Inc., 1945. 392 pp., charts. \$4.

Study of the general aspects of price control and of administrative techniques, such as the freezing of prices, formula pricing, and dollars-and-cents pricing in the retail field. Special problems considered include subsidies, Government contracts, and export and import prices. Some of the chapters in the section on related controls deal with rationing, wages and salaries, consumer credit, manpower, and the direct control of supply and demand through such devices as priorities and allocations. The author states that price controls have been less severe than in Europe, but that they have worked remarkably well. Concluding chapters discuss the problems of price and other controls after the war.

Price control in Canada. Washington, U. S. Bureau of Labor Statistics, 1945. 12 pp. (Serial No. R. 1767; reprinted from *Monthly Labor Review*, August 1945.) Free.

Price stabilization. By G. D. N. Worswick. (In *Institute of Statistics Bulletin*, Oxford, England, July 21, 1945, pp. 173-180; charts.)

Compares price movements in Great Britain in the wars of 1914-18 and 1939-45, showing the greater success in the latter period with respect to price stabilization.

Typical net monthly bills as of January 1, 1945, for electric service to residential, commercial, and industrial consumers, cities of 50,000 population and more, [United States]. Washington, Federal Power Commission, 1945. 34 pp., charts. (FPC R-29.) 10 cents.

Banco de México, S. A.: Vigésimatercera asamblea general ordinaria de accionistas. México, D. F., Banco de México, S. A., 1945. 117 pp., charts.

Résumé of the economic situation in Mexico during 1944, including discussion of prices and cost of living, with indexes of wholesale prices and cost of living in Mexico City, by months, 1941-44.

Unemployment Compensation

Experience rating in unemployment compensation. By Charles A. Myers. (In *American Economic Review*, Menasha, Wis., June 1945, pp. 337-354. \$1.25.)

The author's examination of experience rating leads to his conclusion that the probable social gains from experience rating as it now exists are outweighed by its disadvantages.

Seasonal industries in relation to unemployment compensation. Nashville, Tenn., Department of Labor, Unemployment Compensation Division, 1944. 32 pp.; mimeographed.

Contains an account of the experiences of States in their efforts to define seasonal employment for the purpose of excluding seasonal employees from the benefits of unemployment compensation or limiting the benefits accruing to such employees. It is stated that these experiences have not been satisfactory because of problems of administration, difficulties in defining seasonality, and various other circumstances. The study contains an analysis of employment variations in Tennessee industries, and reaches the conclusion that it is both untimely and unwise to recommend at this time a specific formula for seasonal determinations in Tennessee.

Unemployment compensation disqualifications. By James E. Chace. (In *Journal of Business of the University of Chicago*, April 1945, part 2. 100 pp. \$1.)

A study, with statistics, of the extent to which claimants for benefits in Florida and other States have been disqualified, reasons for disqualification, and duration of the disqualification imposed. The tendency towards harsher disqualifications since 1939 is discussed.

Wages and Hours of Labor

Annual and hourly earnings, Philadelphia knitted-outerwear industry, 1943. Washington, U. S. Bureau of Labor Statistics, 1945. 7 pp. (Bull. No. 830; reprinted from *Monthly Labor Review*, May 1945, with additional data.) 5 cents, Superintendent of Documents, Washington.

Salaries in the California State civil service. Sacramento, State Personnel Board, 1944. 72 pp. Supplemental report, 1945, 6 pp.

Sales compensation plans. New York, American Management Association, 1945. 38 pp. (Marketing series No. 61.)

Current problems in wage policies. Princeton, N. J., Princeton University, Industrial Relations Section, May 1945. 4 pp. (Selected references, No. 3.) 10 cents.

Trends in wage policy under the [U. S. National] War Labor Board. By George Bernard Noble. (In *Oregon Business Review*, University of Oregon, School of Business Administration, Bureau of Business Research, Eugene, July 1945, pp. 1-4.)

Estimates for revenue departments, [Great Britain], for the year ended March 31, 1946. London, His Majesty's Stationery Office, 1945. 74 pp. 1s. 3d. net.

Data on salaries and wages of different classes of employees in the various revenue departments are included.

Women in Industry

Getting rid of the women. By A. G. Mezerik. (In *Atlantic Monthly*, Boston, June 1945, pp. 79-83. 40 cents.)

Discusses postwar prospects of women workers and the obstacles ahead of them, including women's lack of seniority protection, the persistent masculine prejudice against them as workers, the equal pay for equal work problem, and other factors. The author holds that we shall not achieve a sound economy unless wages are based on occupation and not on sex.

Negro women war workers. Washington, U. S. Department of Labor, Women's Bureau, 1945. 23 pp., charts, illus. (Bull. No. 205.) 10 cents, Superintendent of Documents, Washington.

State labor laws for women, with wartime modifications, December 15, 1944: Part I, Analysis of hour laws; Part II, Analysis of plant facilities laws; Part III, Analysis of regulatory laws, prohibitory laws, maternity laws; Part IV, Analysis of industrial home-work laws. Washington, U. S. Department of Labor, Women's Bureau, 1945. 110, 43, 12, 26 pp. (Bull. No. 202—I, II, III, IV.) 15, 10, 5, 10 cents, respectively, Superintendent of Documents, Washington.

Postwar employment prospects for women in the hosiery industry. Washington, U. S. Bureau of Labor Statistics, 1945. 12 pp. (Bull. No. 835; reprinted from Monthly Labor Review, May 1945.) 5 cents, Superintendent of Documents, Washington.

Women's wartime jobs in cane-sugar refineries. Washington, U. S. Department of Labor, Women's Bureau, 1945. 20 pp. (Bull. No. 192-9.) 10 cents, Superintendent of Documents, Washington.

The women's land army. By V. Sackville-West. London, Michael Joseph, Ltd., 1944. 112 pp., illus. 5s. net.

Report on the organization and activities of the British "land girls" from the formation of their organization on June 1, 1939, down to 1944.

General Reports

Yearbook of labor statistics, 1943-44. Montreal, International Labor Office, 1945. xx, 265 pp. \$2 (paper), \$3 (boards). Distributed in United States by Washington branch of ILO.

Summary of the principal statistics of labor in some 60 countries in all parts of the world. Text and table heads are in English, French, and Spanish.

Annual report of the Tennessee Valley Authority, for the fiscal year ended June 30, 1944. Knoxville, Tenn., [1945]. 180 pp.

Contains data on the contribution of the TVA to the war effort; cooperatives and farm income; advantages, to consumers, of TVA activities; recreational facilities created in the course of its work; and, in its capacity as employer, employee housing, health and safety work, and labor-management relations. There are also extended discussions of expansion of natural resources in TVA areas, river control, and power operations.

Economic survey of Latin America: Part II, South American republics, Section I—Argentina, Bolivia, Uruguay. By John F. Hennessey, Jr., and José F. Martínez. (In Commercial Pan America, Pan American Union, Washington, March-April 1945; 73 pp.)

Includes cost-of-living indexes for Argentina and wholesale-price indexes for Buenos Aires, by years, 1936-43; indexes of wages paid in each of 11 leading Argentine industry groups, by year, 1939-43; and indexes of cost of living in La Paz, Bolivia, by months, December 1941 to December 1942.

Statistical summary of the social and economic trends in India (in the inter-war period). By S. Subramanian. Delhi, Office of the Economic Adviser, 1945. 41 pp., charts. 2s. 3d., Manager of Publications, Delhi.

Subjects covered include population, literacy, educational progress, employment, production and productive capacity, prices and wages, and cooperative societies.

Netherlands India: A study of plural economy. By J. S. Furnivall. New York, Macmillan Co., 1944. 502 pp., bibliography, maps. \$4.

Account of the economic development of the country, which also covers the social and political phases.

The Polish worker: A study of a social stratum. By Feliks Gross. New York, Roy Publishers, 1945. 274 pp., bibliography. \$3.

Historical and analytical exposition of the Polish labor movement up to and including the period of Nazi occupation. Chapters are devoted to the social structure of the Polish urban proletariat, wages and the standard of living, labor legislation, trade unions and cooperatives, and Nazi exploitation of Polish labor.

Manpower in the Soviet Union. By Joseph M. Nash. (In World Economics, Washington, March-June 1945, pp. 103-108.)

Gives estimates of the number of industrial and agricultural workers in wartime Soviet Union and discusses training of new workers and measures to increase labor productivity.

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